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#6

PATENT
Docket No. 400742000200

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April 5, 2002.
Date

Hazel M. Raskowitz
Hazel M. Raskowitz

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Spencer B. FARR et al.

Serial No.: 09/911,904

Filing Date: July 23, 2001

For: CANINE TOXICITY GENES

Examiner: To Be Assigned

Group Art Unit: 1642

PRELIMINARY AMENDMENT

U.S. Patent and Trademark Office
Box Sequence
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Prior to examination on the merits, Applicants respectfully request entry of this
Preliminary Amendment for the above-identified patent application.

AMENDMENT

In the Specification

On page 50, please amend the paragraph beginning [00316] with the following:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT
ACG ACT CAC TAT AGG GCG 3') (SEQ ID NO: 385)

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA
GTA CGC GGG-3') (SEQ ID NO: 386)

Please substitute **TABLE 1** with the **TABLE 1** amended as follows:

TABLE 1

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt (SEQ ID NO: 1)	cgcttccgcaacaagtccttt (SEQ ID NO: 2)
C2	c-erb B-2	AB00845 1	507	gtgtttgatggtgacttggaat g (SEQ ID NO: 3)	gtactccgggttctctgctgtag g (SEQ ID NO: 4)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgtc tt (SEQ ID NO: 5)	ccatgctgcataaagggtgga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtggtggt g (SEQ ID NO: 7)	cgagaggtagattgccccttct tt (SEQ ID NO: 8)
C5	Metallothionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgcttt gaca (SEQ ID NO: 12)
C7	Metallothionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaatttccc at (SEQ ID NO: 15)	tggaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgcctttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21)	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcacccattggacct (SEQ ID NO: 23)	gctgttttgctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	ttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttctt g (SEQ ID NO: 27)	ttacatgagtgccaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgtgttggaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggtgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatggt (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaattgaagcctttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttcttg g a (SEQ ID NO: 35)	tgatggatacactgcatactct gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgtttctc ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggaccct (SEQ ID NO: 41)	cagaggctggagttggttggcc (SEQ ID NO: 42)
C22	Interleukin-4	AF054833	301	tcacctcccaactgattccaactctgg (SEQ ID NO: 43)	gtcttgtttgcatgctgctgaggttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	cttgtgcaactcccaaactcgta (SEQ ID NO: 45)	gtgcatatccctggctctcttggcag (SEQ ID NO: 46)
C24	Ubiquitin	AB032025	341	gcagattttgtaaagaccctgacggg (SEQ ID NO: 47)	acttcttctgcggcagttgacagcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF095638	260	agcggtcagtgtaaggagggtgg (SEQ ID NO: 49)	tgtcccagggcacgatgaagtca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagagcaaggt (SEQ ID NO: 51)	acctgggtccgaaacatcgaggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaaattgaacccaaacaaaggca (SEQ ID NO: 53)	ccgcacacctctaactggaccttgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagacctgttggtatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgggc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatcaaacac (SEQ ID NO: 57)	cacttcttctgtgaccacaatccca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgctgtcactggatgaaa (SEQ ID NO: 59)	caccaggtgccccactattcatgttt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgactatcatcagagcatgccccc (SEQ ID NO: 61)	tccatcctaggacccccgagatcatgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggaccctttccgcgactggtagc (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cgggtccctgctggaggactttaaga (SEQ ID NO: 65)	ggtatgacgggggtctccaagcagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacaccgt (SEQ ID NO: 67)	ttgccaacagcctcaaagaaacgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaacacacttc (SEQ ID NO: 69)	tggcaaatacacagagaaaacccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagagggttcagccagtgcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagcgtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgttcgtttgtgaaagg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaaggtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccctcgata (SEQ ID NO: 75)	tggtgtgtcagggtgaagtgttgg (SEQ ID NO: 76)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgttctgtctctctggt (SEQ ID NO: 77)	ggtcagtgaaaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF21125 7	498	tgattgttcttctgccacaaaat gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB02098 6	503	gccttaccctcaggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB02698 8	510	agggtgccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcgggtcacctactgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagctttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF01975 9	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF03922 3	359	ctccaggtgggcttcgaggac gt (SEQ ID NO: 91)	tggggtccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF03202 5	350	ttcttcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggcaaggacgc (SEQ ID NO: 95)	tcacgtagcccacttcgtccac c (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggccacattgtgaaaactcagaaa (SEQ ID NO: 97)	gaccaaggcaaggttgaaaaggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagcaaatggc (SEQ ID NO: 99)	ttgccataggaagaaagtgggctgtt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattgaaaatggagccttcagggaat (SEQ ID NO: 101)	ataattccaagctggatggcagagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggatttct (SEQ ID NO: 103)	atccttctctccttgccctctcctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttctgctcctcatggcc (SEQ ID NO: 105)	cttaaatacagcccggcgcgcg (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtccttcattgtccagagggtg (SEQ ID NO: 107)	ccagatgtgtcacccttgatgaaggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttgagcaggtggtgttggaagaaag (SEQ ID NO: 109)	gcaaatacacagaggaagccttcgcc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagtggagctggtggcgtaggcaa (SEQ ID NO: 111)	ggcaaatacacaagaaagccctccc (SEQ ID NO: 112)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C57	p38 MAPK	AF003597	506	ctggtgacccatcttatgggagcagat (SEQ ID NO: 113)	tttgcaaagttcatcttcggcatctgg (SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaattgatgtgtttctgtggaaaaaaggcag gcccctgccaaaaggccgaatcggggtcccctctgtgaggccac agcaaacctctcacagcccactggtcctaagagatgcatgtgtcca cccatcagcacaactacgcggcacccccctccaccaggaaggactat ccgcgcgccaagaggcgaggttgacagtggtagagtctgaaac agatcagcaacaaccgcaaatgtgccagcccaggtcttcggacacg gaggagaatgacaagaggcgaacacacaacgtcttgagcgccag aggaggaacgagctgaaacggagctctttgccctgcgtgatcagatc ccggagttggaaaacaatgaaaaggccccaaggtagtgatccttaa aaaagccaccgcgtacatcctgtccgtccaagccgaggagcaaaag ctccttccgaaaaggactgttgcggaagcg (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgttgatggtgactgggaatgggggcagccaaggggctgcagagc ctccctcacaggaccccagccctctccagcgtacagtaggaccct acggtaccttgccccctgagactgatgtaagggtgccccctgacct gcagccccagcctgaatatgtgaaccagccagaagttggccgcag cccccttgccctagaaggccctttgcctcctcccgaccggctggtgc cactctggaaaggccaagactctgtccccaagactctctccctggc aagaatggggtgtcaaagacgttttgctttgggagtgctgtggagaat ccggagtacctggcaccggggcagagctgcccctcagccccacc ctcctccagcctcagcccagccttgacaacctgtattactgggaccag gatccatcagagcggggctctccaccagcaccttgaagggaaccct acagcagagaaccgggagtac (SEQ ID NO: 116)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcttcagggtcgtcttttgcctatcctgacactaccgcccac cgctgggacccaactatctcagatacctgtgaactgtcctttccgggct cgagtggccaactaccaacgggatggcccatgtgcatgctcgacaat cagggtgtgtctcaaattactacccaatagcttttagtgcctgaaca acagcgttgtcttagagcatagcagccaatgttcgccagatgtgcag cgcttcaacagtccaatgaagataatgtcactcagggtgcggacctct atttgaagggtacttggtgaagaggagaggaaacgcctgtgcgagaac attgctggccatctgaaggacgcacaactttcatccagaagaaagcg gtcaagaacttcagtgtatgtccaccctgactacggggcccgcatcagg ctcttttgacaaatacaatgtctgagaaacctaagaacgcgattcacac ctttatgcagcatgg</p> <p>(SEQ ID NO: 117)</p>
C4	p53	AF060514	<p>acttttcgacacagtgtggtggtgccttatgagccaccggagggttgctct gactataccaccatccactacaactacatgtgtaacagttcctgcattggg aggcatgaaccggcgcccatcctcactatcatcacctggaagactc cagtggaaacgtgctgggacgcaacagcttgaggtagcgtttgtgcc tgtccgggagagaccgcccggactgaggaggagaattccacaaga aggggggagccttgcctgagccacccccgggagtagcaagcgagc actgcctcccagcaccagctcctctccccgcaaaagaagaagccac tagatggagaatatcacccttcagatccgtgggcgtgaacgctatgag atgttcaggaatctgaatgaagccttgagctgaaggatgccagagt ggaaaggagccagggggaagcagggctcactccagccacctgaag gcaaaagaaggggcaatctacctctcg</p> <p>(SEQ ID NO: 118)</p>
C5	Metallothionein 2	AB028042	<p>gactccagccgccccttctcgcatggatcccaactgctcctgcgccgc ggggggctcctgcacgtgcgcggctcctgcaaatgcaaagagtga gatgcacctcctgcaagaagagctgctgctcctgctgccccgtgggctg tgccaagtgtgccagggtgcatctgcaagggcgcatcggaacaagt gcagctgctgtgcctgatgtgggggagagcctattcctgatgaaataga gcgacgtgtacaaacctacagttgtggggggttttgggtcttttgtttg ggccaactctgaccggttgctactacattcct</p> <p>(SEQ ID NO: 119)</p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactcctgccacaatgtacaaaatgaactctgtctt gcatcgactgacgtgtactgtcgaaacagtgcacctattactcaa gctctacaaaggaaacagagcaacagatggagcaattactgctggatt tacagttgctttgaatggagtaataattatgagaacccccaaactctca ggatgctcacatttaagtttacacgcccaagaaggccacagaatttac acacctcaatgtctagcagaagaactcaaaaacgtggaggaagtgtct agggttacctcaaagcaaaaacgttcacttgacagacaccaaggaatt aatcagcaatatgaatgaacacttctgaaactaaagggatctgaaac aagttacaactgtgaatatgatgacgagacagcaaccattacagaattt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctccgtcctcgctcgctc gcctcgctcgctcgctgggctcgagatggaccccgactgctcctgc tccaccggtggctcctgcacgtgcgtggctcctgcaaatagaaggagt gcaaatagcactcctgcaagaagagttgctgctcctgctgccccgtggg ctgtgccaaagtgtgccagggtgcatctgcaaggggtgcgtcgacaa gtgcagctgctgtgcctgatgtgtgagaacacctgttctgatgtatatag agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgttttctacattcccgttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtacagagctggaatttccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcgacatgccaggg acaaccactgagccccatactctccccgtcactgacactgacctctg ttagccgtctctctcccatcgcacatctctgtagtgctcacgatgacatc ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtcccatgaaactgcccaaccctatgtgtccctgctggtcgtgttccat ctcgttgccacatacaaggacacagcactctggcagcccaattcct gcagagacgagggccctgcaggcagttggcagaagaggccggcga ggattcctgtcccagctccggaagcttctctttagtaataaagcttgct gtggcgctgtctgtgtgagtgaggagggtgtcatgtccagttggg agttcttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagcccatcctgttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcatcgagacactc cctgagaaatacaacaccagagtaggagacaaaggaaccagctct ctggtggccagaaacagcgcatgcatagctcgctctgttagaca gcctcatatttgccttggatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgatcgccaccgctgtccaccatccagaatgcagattt aatagtggtgttcagaatggcaaagtcaaggagcatggcacacatca acagctgctggctcagaaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtggatcggaggctccatcctggcctgctgtccaccttc cagcagatgtggatcagcaagcaggagtacgacgagtcgggcccct ccatcgtccatcgcaaatgcttctagatcgactgcgagcagatgcgtag catttctgcatgagtgaattccgaagtataaattggccctggcaaatgg ctagcctcatgaaactggaataagcgcttgaaaagaaattgtccttga agctngtatctgatatacagcantggattgtagaactgttgctgatcttg acnttgatccaagttaactgttcccttggtatattttaataccgcctattcc aggattctctagaggctggcaagagtctgaaccagttgtcatttctgcttg ccggtctaacagggttggaaggctccgagccttaggacccacttctctgt cttacccaatgtttctgcccagaacaccgtgggtggtaattgcttgaa gttg</p> <p>(SEQ ID NO: 124)</p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagccctctgcccagacagtcaaatacatct tctgaaccccaagtacaagccagtagctcatgtgttagcaaaccct gaagctgaggggcagctccagtggtgagccgacgtgccaatgacct cctggccaatgacgtggagctgacagacaaccagctgatagtccgtc agatgggtgtacctcgatagctcccaggctccttcaagggccaaggg tgccctccacccatgtgtcctcaccacacccatcagccgcttcgccgt ctcctaccagacaaaggtaacctactctctgccatcaagagcccttg caaagggagaccccagaggggaccgaggccaagccctggtacga gcccactacctgggaggggtcttccaactggagaaggggtgatcgact cagcgctgagatcaatctgcctaactatctggacttgccgagctcgggc aggctactttgggatcattgccctgt</p> <p>(SEQ ID NO: 125)</p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatcgccccctccgcagtt tctggcagcagcggtccatgacatcaagcacaagggctccggggc agccgatgacctggtgtttgggtgcccgcgcccagatgaggaccac ctgtatcgggaggagatgttgagatggcccagagtgggtgctgcat gaggtgcacacagcctattctgcctgctgcccagcccaaggctatg tcaagacatcctgcggcagcagctggccagccaggtgctccgcattgc tccatgaggagcagggccaccttatgtctgtggggatgtgcgtatggc cgggatgtggccataccctgaagcacctgggtgctccaagctgagc ctgagtgaagagcaagttgaggactattttccagcttaagagccaga agcgctatcatgaagatatcttgggtgctgtgttccctatgaggtgaaa aagatgggtcagcaaaacagc</p> <p>(SEQ ID NO: 126)</p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagtttagctatttctgggtaacc cagcttattaaagaaagaaagatactagatgagcatgatttgaagtca gaggagatgttgtaagtgaagaaatcaccaggggtccgaagcgagc aagagaatcccaggacagagaatcccaagacagaaagatcttcagg ggcctagaaatctgttgctatggacctttaccaacatgccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatgggtcacctctgtggggcttctgtgggaaggagccttc gttattcaccctcagcaagggcactcatccagtggtagctgtgcagccg gacgcctggacagaggacagtggcttccatgcatgggagatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgtagccctc taccagtgccaggagctggacacctacctgatcccgagattccaga actgctgcagact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggacccccggg aatgcacctgcatgtctggaggaatctgtatctgtggagacaattgcaa tgtacaacctgcaactgtaaaacatgtcgaaaaagctgtctctgtctg cccccggctgtgccaagtgtgccagggtgcatctgcaaaggag gctcggacaagtgcagctgctgtgctgaaccgcatccgtggtgctggg gctggcggggcgggggtgtggatgccacagccccgaaatgtctgt acagtgcattagttgagaaactgaaattattgtaccataggttatgctttta tatattgtcagaggtggtggtggtgacactcatgtaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgtgttggaatatataccccataagcgttactgcactgttctcac ccccggaacaggggtgaagagagctattctgtgtccccagggaataat attcaccctcaagacgattccattgtgtacgaagtgcacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagcttcagagaaccacctcagac aatgtcttagctgtccaaatgccgaaaagaaatgaaccaggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtggtgcaggaagaac cagtaccggtttattggagtgaaccctttccagtgcataactgcagc ctctgcctcaatggcacggtgcagatctcctccaagagaagcagaac accatatgcacctgccacgcgggttcttctaagagagcatgaatgcg tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagactggctgctagaaatatcctccttactcatggtcgaatcacaaag atttgtatttggctagccagagacatcaagaatgattctaattatgtggt caaaggaaacgctcggctacctgtgaagtggatggccctgagagca tttcaactgtgtgtacacatttgaaagtgtgtctggtcctatgggattttct gtgggagctcttctttaggaagcagccccctaccctgggatgccagtgc attcaaagttctacaagatgatcaagggaaggctccggatgctcagccc tgagcatgcacctgctgaaatgtatgacatcatgaagcgtgctgggat gctgatccccgtgaaaaggccgacgtccaagcagatgctgcagctaatt gagaagcagatttcagatagaccaatcatattattccaacctgcga actgcagccccaaccagagcgcgggtggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaatttgaagccttctcaaggagataatgctaaacaacgaaatgaag aaagaagaaaacattgcaatgcaaaaagggtgatcaggatcctcgaat tgcagcccatgtcataagttaggtagtagtaaccagcgctcgttctgc ggtgggcgcaaaaagggtactacaccataagcagcaacctggtgag cctcgagaatgggaaacagttggccgtgaaaagacaaggactctatta cgtctatgcccaagtcacctctgctccaatcgggcagcttcgagtcag ctccgttcgtcgccagcctatgcctccattcccagtggaacggagag agtcttactccgcgcgcgagctccgcggctcgtccaaacctgcggc caacagtcctccacttgggaggagatattgaattgcatccagggtctc ggtgttcgtcaacgtgactgatccaagccaagtgagccacgggaccg gcttcacgtcttttggttactc</p> <p>(SEQ ID NO: 131)</p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttcttgagggaagaaatggaagtatagcagt tcaccattatttggcacatactgtggaactctgttgccagatcctatctct cgaaacaacaaactatacctacgggttaagaccgatagcgcaactcc aatcgtgggtatgaaattgtctggacctcatcacctctggtctgtgtgga acctttatggagacagtggttctcaccagccccggctatccggcac ttacccaacaacactgactgtgaatgggcatcatcgtcctgtctgga agacctgtcaccttcttactttatcagcatcgatgatccgggagac tgtgtccagaactatctcactctacgatggaccgatgctaattcctcat ccttggaccatactgtgggcagacaccaacatagctcccttgtggcc tcttcacatcgtgtcttcataaaatttcacgcagagtatgcagtgtatcat ca</p> <p>(SEQ ID NO: 132)</p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgagatggacgagaagtccaggggacagaggct ggatggcctgaacctcatcgacatctggaagaacttcaaacggagac acaagcactctcactacgtctggaaccgcacggaactcctggccctcg accctacaccggtgactacctcttgggtctcttgagccgggggacatg cagtacgagctgaacaggaacaacgtgactgacctgcactctccga gatggtggaatatgcatcaagattctgagcaagaacccagaggctt cttctgtgtggaaggaggcaggattgaccacgggcatcacgaggg caaggccaagcaggcgctgcacgaggcagtgagatggaccgggc aattgggaaggcaggcgctcatgacctccttgaagacacgctgaccgt cgtcactgaggaccactcccacgtcttcaccttggcgggtacacccc cggggcaactctatcttgggtct</p> <p>(SEQ ID NO: 133)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C20	Pancreatic lipase	M35302	actcagagagcatcctcaaccctgatggattgcttctaccctgtgctt cctacagggccttgaatctaacaagtgtctcccctgccagatcaagg gtgccacagatgggtcactatgctgataaattgctgtcaagacaagt atgagacacagaaatacttctgaacaccggagattccagcaatttgc tcgtggagatacggggttctataacattgtctgggaaaagagccactg gtcaggctaaagtgtctgttgaagtaagggaataactcatcaattca atatctcaaggggatttcaaaccaggctctactcattccaatgattg atgcaaagctgtatgttgaacaattgagaaagtcaagttcttgggaata acaacgtggtaaaccaaccttcccaaagtgggtgcagccaagatca ccgtgcaaaaggagaggagaaaacagtgcacagcttctg (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggacccctccctcctgggccttatgcagggtta catgcagcacgccaccaagacggcccaggacacgctgaccagcggt caggagtccagggtggcgagcggggccaggggctggatgaccgata gcttcagttccctgaaagactactgcagcacgtttaaaggcaagttcact ggcgtctgggattcagcctctgaggccaaaccaactccagcctctg (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctcccaactgattccaactctggctgcttactagcactcaccagca ccttgtccacggacataacttcaatattactattaaagagatcatcaaaa tgttgaacatcctcacagcgagaaacgactcgtgcattggagctgactgt caaggagcttctcactgctcctcaagaacacagcgataaggaaatctt ctgcagagctgtactgtactgctgagcagatctatcacacaactgtctcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	ctgtgtcaactcccaaatcgatcatcagggccaaagttcgtggggaccgca gaagtcaaccagaccgacttaaacggcggttatgagatcaagatgac caagatgttcaagggttcagcgccttggggaatgcctcggacatccgc ttcgtcgacacccccgcctggaaagcgtctgcggatacttgcacaggt ccagaaaccgcagcgaggagtttctggtcgccggaacctgcgggac ggacacttgcagatcaaacctgcagtttctggtggccccgtggagcagc ctgagtaccgtcagcgcggggcttcaccaagacctatgctgctggct gtgaggggtgcacaggtttacctgttcatccatcccctgcaaaactgcag agtgacactcactgctgtggacggaccacttctcacaggctctgaca agggtttccagagccgccacctggcctgctccaagagagccaggg atatgcac (SEQ ID NO: 137)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C24	Ubiquitin	AB032025	gcagattttgtaaagaccctgacgggcaaaactatcaccttgaggc gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggaggggcatccgcctgaccagcagcgtctgattttgctggcgaac agctagaagatggccgaactctgtcagactacaatatccagaagagt ccacctgacacttggtgcttcgctgcgaggtggcatcattgagcctcac tccgccagctggcccagaaatacaactgcgacaagatgatctgccgc aagtgttatgtctgcctgcacccccgtctgtcaactgccgcaagaaga agt (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcggtcagtgtaaggagggtggactctgggaatgacatctacggca accccatcaagcggattcagatgagatcaagcagataaagatgttca aaggaccagacaaggacatagattatctacacggctccttctccgc cgtatgctgggtctccctggacatcgaggaaagaaggagtatctcatt gctgggaaaggccgaggggaacggcaagatgcacatcacctttgtg actcatcgtgcctgggaca (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctggtcagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgcaggatgagtgctgaagcacacaacaattcacctcatctgcgga gtctggaggatttctgcagttcagttcagggctgttcggataatgtac ctgggcataagattgctgtagttcatggcattccttctccagtcagaa acctgtgcagtgggcacaaaactatgtgttctctgtgaggaactaaa gtatgagcgttaggacactatttaattatttaattatgatatttaaatg tgatatggagttatataagtaataagatatattatattttatgaagtgc actgaaatatttatgtattcattttgaaaaagtaaacgtaaaatgctatgc ggctgaatatcctcgatgttcggagccaggt (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaattgaacccaaacaaaggcagagtacacagacactttatgttaa tgttgccccagggatacaaccgtcgtggtcagcccctcctccatcgtgg aggaaggtagtcctgtgaacatgacctgcttagcgtggccttcagc tccgaacatcctgtggagcaggcggctaagtaatgggcgctgcagtc tcttctgaggatccaattctcaccttaactctgcaaaaatggaagattct ggatttatgtgtgtaagggaataaccaggctggaataagcagaaaaag aagtagaattaattatccaagttgctccgaaagacatacagcttatagctt tccttctgagagtgtcaaggaaggagacactgtcattatctcctgtacat gtggaaatgtccaaaaactggataatcctgaagaaaaaagcagag acgggagacacagtgctaaagtccagagatgggtcatataccatcca caaggtccagttagaggatgcggg (SEQ ID NO: 141)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C28	Phenol sulfotransferase	D29807	gctccccagacctgttgatcagaagggtcaagggtggtctacgtcgcc cgcaacgcaaaagatgtagctgtctctattaccacttctaccgcatggc caagggtgcacctgacctgacacctgggacagcttctggagaagt catggctgggaagtgtctatgggtctggtatcagcatgtgcaggaat ggtgggagctgagtcacactcacctgttctacctctctatgaggaca tgaaagagaaccccaaaaggagattcagaagatcctgaagttgtg gggcgctccctgccagaggagactgtggatctcattgtccagcacacgt cttcaaggagatgaagaacaactccatggctaactacaccaccttatct cctgacatcatggaccacagcatttctgccttcatgaggaaaggcatctc gggggactggaagaccaccttactgtggcccagaatgagcgcttga tgc (SEQ ID NO: 142)
C29	GRP94	U01153	aatcccagacatcccctgatcaaagacatgctgcgacgagttaagga agatgaagatgacaaaacgggtatcggtatctgtgtgtgtttgttgagac agcaacgctgagatcaggctatctgtaccagacactaaagcatatgg agatcgaatagaaagaatgcttcgcctcagtttaaacattgacctgatg caaagggtggaagaagaaccagaagaagaacccgaagagacaacc gaggacaccacagaagacacagagcaggacgatgaagaagaat ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat ctacagctgaaaaagatgaattataaattatactctcaccatttgaacct gtgtggagaggggaatgtgaaattaaagtcatttcttcgagagagactgtt ttggtgtccccgcagcccccttctccccctgcactgtaaaaatgttgggat tgtgggtcacagaagaagtg (SEQ ID NO: 143)
C30	E-selectin	L23087	ttacacggtgtgtcactggatgaaataattgccaggagtttagggga aacaactggtcaaagtattctatcaccaacatgcaaaaaaatattttaa atgcccacaggcgagtacatggggaaatcctgcttaatactttgtgcaa ggattgctaaacacagtcctaataccctttacccctgtgggattcagtgcat tttaaagtgttcttagagattttaaagtgttctttatttgcattggctaaagtac aatttccctaattcttaattcagtgtaagtgttagagactttaaaatatatg catgttagagctatgatagggtaaaagttacttatcagggatctttgttatg aagggactctaattgtatatctgtagtaaatcattttaaaaggggcaaat gctgtccccagttatcgtgaatcagtgtaaatgttgtaattgtttactata gttgcttttaaaaacatgaatagtggggcacctgggtg (SEQ ID NO: 144)
C31	gastric lipase	Y13899	tgcactatcatcagagcatgcctccctactacaacctgacagacatgca tgtgccaatcgagtggtgaacgggtggaacgactgtgtggccgacct cagcatgttgaccttttgccttccaagctcccaatctcatttaccacagga agattcctccttacaatcacttggaattatctggccatggatgcccctca agcggtttacaatgaaattgttccatgatgggaacagataataagtagtt ctagatttaaggaaattattctttattgttccaaaatacgttctctcacacg

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tggttttctatcatgtttgagacacgggtgattgtcccatggttttgattcaga aatgtgttagcatcaacaatcttccattggaattttgaatttaaaatgattt ttaaattggggcatctgggtggctcagtcggctaagtcgtctgcctcgg ctaagtcagatctcggggctcctaggatgga (SEQ ID NO: 145)
C32	HSP27	U19368	ggaccctttccgcgactggtagccggccacagccgcctctcgacca ggccctcgggctgccccggctgcccggaggagtgggcgagtggttcgg ccacagcgggtggccgggctacgtgcgccgatcccccccgggctcg agggccccgcgcggccgcccgcggccgcccgcctacagcc gcgcgtcagccggcagctcagcagcggcggtgcggagatccggca gacggccgacgtggcggtgtccctggacgtcaaccactcgcccc cgaggagctgacgggtcaagacgaaggacggcggtggagataact ggcaagcacgaagagaggcaggatgagcatggctacatctccgcc gcctcactccaaatacacccctgccccctgggtggatcctaccctggc tctcctccctgtccctgagggcactctcacggtggaggctcccatgcc caagccagccaccagtcggcagaaatca (SEQ ID NO: 146)
C33	IL-10	U33843	cgggtccctgtggaggacttaagagttacctgggtgccaagccctgt cggagatgatccagtttacttgaggagggtgatccccgggctgagaa ccacgaccagacatcaagaaccacgtgaactccctgggagagaag ctcaagaccctcaggctgagactgaggctgcgacgtgtcaccgattt tccctgtgagaataagagcaaggcggtggagcagggtgaagagcgc atttagtaagctccaggagaaagggtgtctacaaagccatgagtgtt gacatcttcatcaactacatagaaacctacatgacaatgaggatgaaa atctgaaacgtgctggagaacaaaacaccaggatggcaactctctc gactctaggacatgaattggagatctgaaaataccatcccgagatga ggagagccgaccaactgcttgagaaccccgatcacc (SEQ ID NO: 147)
C34	caveolin-1	U47060	tccgaggggacacctctacaccgttcccatccgggagcagggcaacat ctacaagcccaacaacaaggccatggcggaggagatgagcggagaa gcagggtacgacgcgcacaccaaggaaatcgacctggtcaaccgc gacccaagcatctcaacgacgacgtggtcaagattgatttgaagatg tgattgcagaaccagaagggaacacacagtttgatggcatctggaagg ccagcttcaccaccttactgtgacaaaatactggtttaccgctgtgtc tgccctcttggcatcccaatggcactcatatggggcatttcttgcattc tttcttctgcacatctgggcagttgtccgtgcattaagagtttctgattg agattcagtgcatcagccgtgtctattccatctacgtccacacctctgtga ccgctcttgaggctgttgga (SEQ ID NO: 148)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C35	H-ras, p21	U62092	accatccagctcatccagaaccacttcgtggatgagtagcagccccacc atcgaggactcctatcggaagcaagtggcattgacggggagacgtgc ctgctggacatcctggacacagcggggccaggaggagtagacgcgccat gcgggaccagtacatgcgcacgggggagggttctctgtgtattgcc a (SEQ ID NO: 149)
C36	rab2	M35521	agacaagagggttcagccagtgcatgacctgactatcggtgtagagttg gtgctcgaatgataactattgatggaaacagataaaacttcagatatg ggatacggcagggaagagtccttcgttccatcacaaaggatattac agagggtgcagcaggggttactagtgtatgatattacaaggagagata cattcaaccacttgacaacctggtagaagatgcccgccagcattccaa ttccaacatggtcattatgcttattggaaataaaagtgttagaatcaag aagagaagtaaaaaaagaagaagggtgaagctttgcacgagaacat ggacttatctcatggaaactctgctaagactgctccaatgtagaagag gcattattaatacagcaaaagaaatttatgagaaaatccaagaagga gtcttgacattaataatgaggcaaacggcattaaaattggcctcagca cgctgtactaatgccacacac (SEQ ID NO: 150)
C37	rab5	M35520	aagcctagtgtctgtttgtgaagggccaatttcattgaattcaagagag taccataggggctgtcttttaacccaaactgtgtgtcttgatgataaac agtaaagttgaaatatgggatacagctgggtcaagaacgataccatag cttagcaccaatgtactacagaggagcacaagcagccatagtgtatat gatcacaaatgaggagtccttgccagagccaaaaactgggttaaa gaacttcagaggcaagccagtcctaactgtaatagctttatcaggaa acaaggctgatcttgcaataaaagagctgtcgatttcagggaagcac agtctatgcagatgacaacagtttattatcatggagacatcagctaaa acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagttgc caaagaacgaaccacagaatccaggagcaaatctgccagaggaa gaggagtagaccttactgaaccacgcagccaa (SEQ ID NO: 151)
C38	rab7	M35522	ccccaacacattcaaaaccctcgatagctggagagatgagtttctc caggccagtcctcggaatcctgaaaacttcccttcgtgtgtgggaaa caagattgacctcgaaaacagacaagtggccacaaagcgggcaca ggctgtgtctacagcaaaaacaacttccctacttcgagaccagtg caaggaggccatcaatgtggagcaggcgttcagacgattgcaagga atgcactaaacaggaaacagaggtggagctgtacaatgaattccctg aacctcaaaactggacaagaacgaccggggccaagacctcagcgg aaagctgcagttgtgaaggggcagtgagagcagagcacagagtcct tcacaaacaagaacacacttaggcctccaacacgagcccccttctc

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tcttcaaaacaaaacataaagtcattctcgaatccagctgccaaaaga ccctaccaaacacttcacccctgacacacaca (SEQ ID NO: 152)
C39	APO CII	M17177	ctgggtctgttgcctcctggtattgggatttgaggccagggggccc atgagtcacagcaagatgaaaccaccagctccgacctgctaccag atgcaggaatcactctacagttactggggcacagccagatcggtgcc gaggacctgtacaagaaggcatacccaactaccatggatgagaaaaat cagggaacataacagcaaaagcacagcagctgtgagcacttacgca gggattttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgacctgtgccccctgttgcgacgcagggcaagggccaggctggc cgctgccccggagcatccagcaccctcagcccgggcccgaggctccc acctgcgccctcggtgtgtcctgcagctcctggtcgacaaggagtg cgctacttctgccacctggacatcatctgggtgaacactccgggtgag ctcccgggggaccaggcggggtgctagaggcggggcaggggg tggggaacctgtagctagcacagctctccctgggcctccagacggatc gctgagctgacatgaagagcgggtgggtgtgtccctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttctctgccacaaaatgccagtagtaacaaaacccatcgata ggaaagtattttgttctgtgcagctctgtcattgggcccattggagcgcg gaactggacttccaagacaaaatggtagcagcgttctcttaaaaagatg cctaatccattcctcgagggtggaccttagttgagatgatagcagactgt actcccccccgagcgtggcctctgcccagttgcacgtaatacagatt agcctgtattctctcagtggtttgataatggctccagattcattggcgtt agggaaagcctttagaatcttcacgtgtcatcgctgaaattgaaacactg agttgtctgtgatggtttggagatactccatcttttaaggggttgccttg tctaattctggcaggacctcaccaaaagatcgggcctcgtagcaacgtc agacacgatgtcgccgtgtgtgctgtctgtattta (SEQ ID NO: 155)
C42	leptin	AB020986	gcctaccctcagggaacctgcattccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgacagctgaac cagcgactcctcagcaggcggaatgctgaactgagaatgtcagtg ctcagggggccacaggctaaccctgctccacttcgtagcattttgtctt cagggcacggcagcatttattactgtgtgacacatccctgaaagcag cagcatagctgacaatttaaaaataagaactaagaacatacctaagac cataacggcagacaagtagcaggcgagactagagttcaggacct ctgactcccagagtgctccgggagccaggaatgtccctggaggtgc aaataggggtgggcaggggagaccagaagtgttacaggagagag gactggagggtgattttcaggagggtgaggatgtgaattgcctgaatgg

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			cggaggctgtttgtcatgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	agggtgtccctgcagcccaactccaacaggataagttcctggggcgctg gttcacctcgggctcgctccaactcgagctggtccgggagaagaa gaacgtgtgtccatgtgtatgtcagtggtggcccgaccgcagacgg aggcctcaacctcacctccacctcctcaggaagaccagtgtagac tcgaacctgtctctacggcggcggggaacccgggctgtctacagta cacgagtccccactggggcagtagccacgacgtgtgggtgtagcca ccaactacgaggagtagcgcttctacaccgcaggcagcaaaggc ctcgccaggactccacatggccactctctacagccgacccagacc ccaaaggccgagataaaggagaaattcagcacctttgccaagacc agggttcacagaggatgccattgtcttcctgccacagactgataatg catggaggagaacaagtaggtgaccgcgccc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttcccagataagcctggagggatattaatgat ggatctaaaaaaggaaaacccgagggcactggaattaagaatcagc cgtgggttcaattggcttcgtcaatccacatggtatcagcacctcatag acagcgacgacacagttatctcttgtgtaaacatccagaattcaag aatacagtggaatttttaattgaagaagaagaaattcttctgcat ctaaaaacaatcaaactgaacttctccaagtgtgaatgatcatagc tgttgaccagcacatttctatgccaccaatgaccatttctctgacctt tctaaagtatttgaaacatacttgaacttacactgggcaaatgtgtta ctacagtccagatgaagttaaagtggtagcagaagggttgatgcagc aatgggatcaatatctcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtgtcaacagttactactcttggtacag actatgggcacatggaggtgattcagctgcagctggccaccgagttga gaactggtataggacctaccagaaccaataatccagagcgagtagc gggcagagacaattgcaggctccaccaggatccacctctgatgtcag tgaggagtaccagaaaggctgtctcgagcagtagtacttggtctggat cagaacgcaaagaatatgtggtggagagctcatctggaatttgctg attttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcatcttactcgccagagacaacccaaagcggcgccctcctttgc gagagaggtagtggaaactgccaatgaaaccgggcaccaccgggc cgcgccaagtccagtggttgaaaacagccggtcgcctctgaag cctctgtct (SEQ ID NO: 159)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C46	caveolin-2	AF039223	ctccaggtgggcttcgaggacgtgatcgcgacgccgtgtctacgcact ccttgacaaaagtggtgattgcagccatgccctgttgaggcagcaagt acgtgatctacaagttcctgacgttgctcctggcgatgccatggccttcg cggcaggggttctctcgccaccctcagctgcctgcacatctggattata atgcctttcgtgaagacctgcctcatggtcctcctcggtgcagaccata tgaagagtgtaacagatgctgtcattgccccgtgtgtcaagtgtagg acgcagcttctctgtcagcttgcaagtgagtcacgactgagcactgg accca (SEQ ID NO: 160)
C47	matrix metalloproteinase-14	AF032025	ttctcaaaggagacaagcactgggtgttgatgaagcttcttggaaact ggctacccaagcacatcaaggagctgggcccaggactgcctactga caaaatcgatgctgctctcttctggatgccaatggaagacctactctt ccggggaaacaagtattaccgtttcaacgaggaactcagggcagtggt acagcgagtacccccaaaaacatcaaggctcgggaaggaatccctga gtctccagagggtcattcatgggcagtgatgaagtctcacttactcta caaggggaacaaatactggaaattcaacaaccagaagctgaaggta gagccaggcta (SEQ ID NO: 161)
C48	matrix metalloproteinase-9	AB006421	gattctcaagggaaggacgcccgggtgcagggccctcttatcac cgagcagtggtgctgctgccccgcaagctggactccgctttgagg acgggtcaccaagaagacttcttctctggtggcgaagtgtgggtg tacacaggcagctcggtggtaggcccgaggcgtctggaacagctggg cctgggcccggagggtacccaagtcaccggcgccctcccgaacggg gggtaagggtgctgctgttcagcaggcagcgcttctggagtctcagctg aagacgcagaccgtggatcccaggagcgccggtcgggtggaacag atgtacccgggggtgccctgaacacgcatgacatctccagtaaccaag agaaagcctactctgcccaggaccgcttactggcgtgtgaattctcgg aatgaggtgaaccaggtggacgaagtgggtacgtga (SEQ ID NO: 162)
C49	IL-8	U10308	gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga aatgaggtgtgcctggacccaaggaaaaatgggtacaaaaggtgtg gcagatatttctaagaaggctgagaaacaagatccgtgaaacaaca aacacattctgtggttccaagaattcctcaggaaagatgccaatgag actcaaaaaaatctatttcagtacttcatgtccgtgtgacctgtgtgag gattgccagataaaaaacagtatgccagttgattgaaatattaagta aaacaatgaatagtttttctaaagtcataatgttgccctattcaatgtct aggcacacttacattaaacataattattcattgttgctgtaaattcaaatgta gctggaaatcctggatataattgtgtgtgtacatctttccacctcacctaca ggccaggatgcatgagtcctttcaacctgtccttggtc (SEQ ID NO: 163)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C50	keratinocyte growth factor	U80800	<p>caatgacatgactccagagcaaatggctacaaatgtgaactgtccag ccctgagcgacatacaagaagttatgattacatggaaggaggggat aagagtgaagaagactcttctgtcgaacacagtggtatctgaggattgat aaacgaggcaaaagtc aaagggacccaagagatgaagaacagttac aatatcatggaaatcaggacagtggtggaatagtggcaatcaaa gggtggaaagtgaatattatctgcaatgaataaggaaggaaagctct atgcaaagaagaatgcaatgaagattgcaactcaagaattaattct ggaaaaccattacaacacatatgcatcagctaaatggacacacagcg gaggagaaatgtttgtgttaaatcaaaaggggttcctgtaagggg aaaaaacgaagaagaacaaaaacagcccacttctcctatggc aa</p> <p>(SEQ ID NO: 164)</p>
C51	decorin	U83141	<p>gattgaaaatggagcctccagggaatgaagaagctctctatatccgc attgctgataccaatataactaccatccctcaagggtctcctctccctac tgaattacatctgaaggcaacaaaatcaccaagggtgatgcatctagc ctgaaaggactgaataattggctaagttgggactgagtttaacagcat ctccgctgtgacaatggcactctagccaacactcctcatctgaggag cttcaactggacaacaataagctcatcagagtacccggtgggctggcg gagcataagtacatccagggtgtctacctcataacaacaatatatctgc agtcggatctaatagtcttctgcccacctggatacaacaccaaaaaggct tctattcaggtgtgagcctttcagcaaccagtgagtagtgggagatc cagccatccacttccggtgtgtctacgtgcgctctgcatccagcttga aattat</p> <p>(SEQ ID NO: 165)</p>
C52	glucose-6-phosphatase	U91844	<p>ctggggatctcagctgcaggattttctacctgtcccatcctacaagaaa gggaaaggagcagtggttgatagagaagaagaatggattaagg aaagacttctcgtatcctgcataatcatgcaaatcatgttacacaaaatct aaatcgcttgattatattgaatttttaggtaaggaaactctcaatagtggg gaccaactaaagcataactaataggtagttaatggggaattctgcttct tctatgttctactatgtattcagtgacctagattgtgtgggtcagagcatt cagatatagtcagcttctctatcacactacatcttctcctgtcagcctag ctcagctttccctagaacttccactgctctacatcgtgctgacacagaga tgcctaaaggcagctcagggtagtgctttgtatggttagtcaagctctg aaatctgggcaaaaaggtaggagaggggcaaggagaggaaagg at</p> <p>(SEQ ID NO: 166)</p>
C53	TGFB1	L34956	<p>gacccttctgctcctcatggccacccactggagagggccagcacc tgcacagctcccggcagcggggccctggacaccaactactgcttca gctccacggagaagaactgtcgtcggcgagctctacattgactccg caaggatctgggctggaagtggatccatgagcccaagggttaccacg ctaacttctgctggggccctgcccctacattggagcctggacacgca</p>

ID#	Gene Name	Accession Number	Target Sequence
			gtacagcaaggtcctggccctgtacaaccagcacaacccgggcgct cgggcgcgccgtgctgctgcccgcaggcgctggagccactgccatc gtgtactacgtggccgcaagcccaaggtggagcagctgtcgaacat gatcgtgcgtcctgcaagtgcagctgaggccccgccccgtccggcag gccccgccaccggcaggncggccccgccccgccccgctgcgc gggctgtatttaag (SEQ ID NO: 167)
C54	ZAP36/annexin IV	D38223	gacacgtccttcattgtccagaggggtgctggtgctgctgctggccggtg cagggatgaaggaaatttctggacgatgctctcatgagacaggatgct caggacctgtatgaggctggagagaagaaatggggaacagatgagg tgaaatttctgactgttctgctcccgaaccgaaatcacctgttgcatt gtttgatgaatacaaaaggatatcacagaaggatattgacagggtatt aaatctgaaacatccggtgagcttgaagatgctctgctggccatagtaa gtgcatgaggaacaaatctgcatacttctgtaaaggcttataaatctat gaagggcttgggaacagatgataacaccctcatcagggttatggtgtct cgagcggagatcgatatgatggacatccgggagagcttcaagaggctt tacggaaagtctctgtactcctcatcaagggtgacacatctgg (SEQ ID NO: 168)
C55	N-ras	U62093	gttgagcagggtggtgtgggaaaagcgcactgacaatccagctaact cagaaccactttgtagatgaatatgatccaccatagaggattctaccg aaaacagggtggttatagacggtgaaacctgtctgttgacatactggat acagctggtcaagaagagtacagtgcctatgagagaccaatacatgag gacaggcgaaggctcctctgtgtatttgc (SEQ ID NO: 169)
C56	K-ras	U62094	gtagtggagctggtggcgtaggcaagagtgccctgacgatacagcta attcagaatcactttgtggatgaatatgatcctacaatagaggattctac aggaaacaagtagtaattgatggagaaacctgtctcttgatatttctga cacagcagggtcaagaggagtacagtgaatgagggaccagtacatg aggactggggaggggcttcttgtgtatttgc (SEQ ID NO: 170)
C57	p38 MAPK	AF003597	ctggtgacccatcttatgggagcagatctgaacaacattgtgaaatgtca gaagcttacggatgacctgttcagttccttatctacaaattctccgagg tctcaagtatacatctcagctgacataattcacagggaacctaaacctta gcaatctagctgtgaatgaagactgtgagctgaagatcctggactttgg actggcccgacatacagatgatgaaatgacaggctatgtggctaccag gtggtacagggtccttgagataatgctgaactggatgcattacaaccag acagttgatatttggcagtggtgatcataatggccgaactgttgactgg aagaacgtgtttcctggtacagaccatattgatcagttgaagctcattta aactcatttgaacccccaggggctgacttttgaagaaatctcctcag

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			agtctgcaagaaactacattcagctcttgacccagatgccgaagatgaa cttgcaaa (SEQ ID NO: 171)

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays**, amended as follows:

TABLE 3 50-mer target sequence for canine arrays

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctcctcagcaggggcccaggtacaat aaaccagttgggtgctcc (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaagcctgacatcc cctggtcaggtggtgagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactcttaactctggg aatgtacaagggatagt (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:

Table 6				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAA TTGCACT GAA (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTTGAAATACCTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGCCCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC (SEQ ID NO: 179)
C65	Super-oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA (SEQ ID NO: 180)	TCTCC CAGTT GATTA CATTC CAAA (SEQ ID NO: 181)	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAAGATTGCTGCT TGTTTTAACCAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGCC (SEQ ID NO: 182)
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A (SEQ ID NO: 183)	TGGCA GCCAA ATTCT CATTC (SEQ ID NO: 184)	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCGCAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACCACAGCGAGTCCTGGAGGACA TCCCCTTGAATTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAATCCTCAATTACTGCAGCAAATT AGCCAGCACCAGGAGCATTTTATTGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCTGAAGG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGCC (SEQ ID NO: 185)

C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C (SEQ ID NO: 186)	AGTGT CCCAT ATCCG CAATT TT (SEQ ID NO: 187)	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAACTTGGAAA TGGAAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAGTTCAACTAACTTTGCACTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTTGTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC (SEQ ID NO: 188)
C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATAACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTGTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG ACAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Glutathione S-transferase alpha subunit	CAGAGA AGCCCA AGCTCC AC (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCCG (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAACTGTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR-	GTCCGTG	CACCG	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC

	cadherin	GCAGAG TCCCTCA GCTCTAT (SEQ ID NO: 192)	TGATG CCACA TAGCT ATCTT CG (SEQ ID NO: 196)	TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACCTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTTT GTAGGACACAATCATTTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)
C71	N- cadherin	GGAGCC TGATGCC ATCAAG CCTG (SEQ ID NO: 198)	GGTTT GCAGC CTATG CCAAA GCC (SEQ ID NO: 199)	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGA GGTGATGACTGAACTTCAGGGTGAACCTGGTC TTTTGGACAAGTACAAACAATTCAACTGATAT TCCCCAAAAGCATTTCAGAAGCTAGGCTTTAAC TTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC (SEQ ID NO: 200)
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG (SEQ ID NO: 201)	GGGTG GCCCA TCAAT TCTTC AGGT (SEQ ID NO: 202)	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTCGGTTGTTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTTAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCCTGAAATCTTTCAGGCGCCAT ATAAGCATTTGTTCCAACATACGTCTTGGCTAT AGAATTACACAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCCTCTTGTGTTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAACTCCACAAGTAGGTAAGGCCTTTA ACAACTGCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTCTATATACATCCAAAGATCCC CCATCCATGA (SEQ ID NO: 203)
C73	Glucose transpor- ter	GCAGCA GCCTGTG TATGCCA CC (SEQ ID	AAGCC GGAA GCGAT CTCAT CGAA	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCCACAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT

		NO: 204)	(SEQ ID NO: 205)	GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCACCTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCGATGGTCATG AGCACGGCACAGCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC (SEQ ID NO: 206)
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT (SEQ ID NO: 207)	GCTCA GCCCC TTTGA TGGGT AGC (SEQ ID NO: 208)	CGCCGATGAGTACGACCAGCCTTGGGAGTGGGA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAGC ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCCAGAAGTCA TCCACTACTATACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC (SEQ ID NO: 209)
C75	Ear-3 (v- erbA related) or Apolipop rotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC (SEQ ID NO: 210)	CATAT CGCGG ATGAG AGTTT CGATG G (SEQ ID NO: 211)	TGCAGATCACCCGACCAGGTGTCCCTGCTTCGC CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCGCAGGCCCTACACGCCTCA CCCATGTCCGCGGACCGAGTGGTTCGCCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTC CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTCCGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG (SEQ ID NO: 212)

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTTCNAGACA CGCAGCTGACCAAGGAGTGAGGG AGGGACCAGGTGTGCAAGCTAAT AAATAGAGGAGGGGGAGACTTCC TGGAGCTGTAGCCATTTCAGTCTTC ATTCTTCTCAGGCATGAAGGCATC TCTTTTCTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATATTA GTTTGCATTTTAGTGACAGGTGTA AGAGAAAGGCCCTTCTTCCCTTA CTGGGACAAATCTAGAAATCTTAC ACAGATGTGCAAATAAAGCTCGCG TGGTGTTT (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGTCT GGAAATAAATACAAATATCTGATTA AGAAACTTCTCTGGAAAGACTTGT ACACAACAGTTTTCTGTCTCGAT TCAGCCACTCCTGCCCTGACCAAA GCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCCAC GAAGTTGTTTTAAGGTTACAGCTA TGAATAAACATTGTCCAAACAATG AAGATTTAGGGCTGAAGAACGAG CGTATGTCTACAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTGGG AGGTAATCCTAGAAACACAGAAG GGGGTGGGGATAGGAGGGATGG CAGGAAAACCAAGTAAGAACTGTGT TATTGAGAAGGTTATCACTGTGGA CAACTGGCACAGAATACACTTCAG AGCTGTGCGCCCTGAGGGACAATG ACGCCAAGGTCTTTTTCTCTAAGT CCTGTTTCTTATAGGCCGAGGGTG GCTCCTGGGAGCAGTAACTGCCA ACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTGAGC CATTGATATATTTGAAAATTATGGC ACAAATGGAAGAGAACCACATTTG AAAAGCTTCCAGCCTTTCAACAGA AGATAACTCTTCTTGTTTTGCAGAT TGAGCAGATAATTTCTTTTGAAGG TGATAGTTTCCTAAATTGGATAAAA CCGTGGCTGCCATTATATTCACAG AAAATAAAATGAAAACCTTCAGTTAA TTGTGGATTTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTATAA ACTAGTTTCACAGGCTACAAGGAA GTATTTAGGACTATGTACAGCCTG ACGGGAAACAGGCAGGGAGCTGA GGAGGGCCAAGATGAGTCTAGGG CCTTGGTGGGCGCATTCCCGGGG GAGGGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCAAGA ACAACGGCATAACAAACAAACACG TCTGTGGCAATCAAGCTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAATTT TAGGGTTAAGGGATAGGAGGAGT AGGGGCAGTAGGTGCAAGGTCAT TAGGGCATTCTCGTGTGAATGA TGGTTTGATATTTTGATATGGTG GGAATATTTACCACGTTGTGTGGT GATTAATATATAAAGTGAGTATAG GGCGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCACCT GCTGTGTACCCAGCACTGCGGGA GGGGCTGTGAGAGACCCAGGGCA GTACAGGACTTGTTCTTGCCCTTC AGAGGCTTATAGTCTAGGTGAAA CAGGAGAACCAGGACACATGAGG AGCCAGGAGAAAACAGTACAGGC CAGGATGTTACAGGAGCTTACAGT GTTTGGGGTCAGACCCACTAAGT GCTTCAGTACCTCTAGGGGCTCAA TGTTTCAGGGCCAGAAGAGACAATA ACTCACAACCTAGCCCATGTAGCAT GCCCTATCCACAGCGTCTACCTCT GCTATCTTAAACATCTGACTCCT CGTTAAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTATTATTATAGTA CATGAGCTGGACTGATGGGAAAG GGTAGGTGTATGGGCAACCACTG CCCAGATTAGCATCGGATGCCCAT CCCGATGGCCATGAATGTGCCAA ATGTGCCGCCACTCTGCATCATGG TTTTCCCGATGCCGCCCATCAGCT CCCGACCCCGCATTCCGATCCTG AGACAGGAAAAGGTGCCGAAGAG CGCCCCGGCCGCCATGCCCACTG CACAACCCATCACAAAGCCCATCT TCACGCGGTAAAAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTTATTCTTGT TATACCTTCCCAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTGAGA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGGATT TATACATGAAAAATGGACAAGGCT TTGCATTAGTTTACTCCATCACAG CACAGTCTACATTTAATGATTTACA AGATCTGAGAGAGCAGATTCTTCG AGTTAAAGACACTGATGATGTAAG CTGACTTCCTAATAAATATATTTTA CTTG (SEQ ID NO: 225)
CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCATC AGGGCTGCCAAGGAAGCAAAAAA GGCTAAACAAGCATCTAAAAAGAC AGCAATGGCTGCTGCTAAGGCTC CCACAAAGGCAGCACATAAGCAAA AGATTGTGAAGCCTGTGAAGGTTT CCGCACCCCGAGTTGGTGAAAAA CGCTAAGTTTTAGTGGATCAGATT TTTAAATAAACATCTGACTCTAACT (SEQ ID NO: 226)

CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTTATT TGACAATCAGCGATTAGTTCTCAT CCACATTAACAGTCTGTAGATTTTT GAAAGTGGTGACAGGTACGTAGG TAACCAGCGTGTAGAGCTTGTGTTG GTGAATCTTCATCCTCGTTAAGCT T (SEQ ID NO: 227)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGACC TCAAGGGTGATAGTTTTGCCCGTC AGGGTCTTCACAAAGATCTGCATC TCTGCGTCTGCTGGAGCGAACTC GCAAGGCCGCCGCCACCAAACCG CTCGCCACCTCGTTAAGCTT (SEQ ID NO: 228)
CTP25D	No significant match		AAGCTTGCACCATATATAACTCT TGGGCAGAGGGTCTGGCATAACAT AAGTAGATACTCAGAAATATCTGT TGGATTGTGTTGATTTAATTATTTT TGTGTTGCTTCTTTTAAAGATGAG CACTTTCTATTAGATATTTTTTTGA TCAAAAAAAGATATTTTTTTGATC ATACAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTTCCTGGTTGG (SEQ ID NO: 229)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAGAGAGG CAGAGACACAGGCAGAGAGAGAA GCAGGCTCCATGCAGGGAGCCTG ACGAGGGACTCGATCCCAAGACT CCAAGATCGTACCCTGGGCCAAA GGCAGGAGCTTAACCGCTGAGCC ACCCAGGTGTCCCAACTGTCAGG GTTTTAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGTCAT ATTCATAAACATAATACGTTGAGAA GCTT (SEQ ID NO: 230)
CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGTGTA CAGTTTTTGTAAGGTTTTAATTTTA CAATCATTCTGAATAGTTATGGTC AAGTACAAATTATGGTATCTATTAC TTTTTAAATGGTTTTAATTTGTATAT CTTTTGTACATGTAACATATCTTAGT TATTTGGCTAATTTTAAAGTGTTTTT GTAAAGTATTAATGATGCCACCT GTCAGCACAATAAGAGTAAGAACT AATAAATGGATTTGG (SEQ ID NO: 231)

CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAGAGA AAACTTCTAAATTGCCAGATATGTT AAAAGACCATTATCCATGTGTGTC TTCAGTGGAGCAGTTAACAGAGTT GGGAGGTGAACTGATGTTTTTGT ATGCCGTCCTAACACAGCCCTATG CCCGATGTACTCAGAGACTGGAA CAGCACAAGAGAAATAAGCAACA ATCAGTAATGGG (SEQ ID NO: 232)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAATAG GAATGAGTAATTTGGGCTTTGAAA TCTCTCCCAGAAGACAACTACTT CGATGGGAAAAAGCTTTGACATTT TGTGTTTTATTTGTAGAGGGGGTT ATTGGATACAGAGGAGCCTGGTCT CATACATTTTCATCTTCAGTCTGAA AAGATCTGTAATTCTGTAGACCCT GAAGCGGGGGAACCTTTTCTTCTG CCATCTCCCTTTGCTTTCATATGAA CACCTCTTCTGTACCAATCATTTG GAAAAGAAGTGAGCATATCTCTTG TTTTAAAAGTTTGTGTTGNCTGGTT AGCATTCCCTTTGAGCTCAACATA TATGGAACAATAAATGTCATTTAAT GCTGNGNGCTATTTTGAATTCCTC ATCAGGTTTTAGAAGTGGGGTCAA GAACACTTAAAAGCTCATTGGACT TTGAAATTATNCCAGCCGCCNTTG ACCATTATCTGGCCCANCAAAGCA GGTTAAATTATGGCNCCNGCAAAT TTGCTTTTTTTTTTAATAGNNGGAN GNNTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC (SEQ ID NO: 233)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGACTT ACCCCTCCCAGATCCTGAATGTCC TTTTGGAGTTTTTCAGATACGGTG ACAGAAGGTAAGTCAATGTAAAT ATTTTTCCCAGAGTGGCTTATATT TGTATTTTTCTGGTTTGTATCAGT TTTCATAGATTTTCATAGATCTGTTT TTTTCATTTTTGACTTGGATTCCAC CTGTTGTTTAAAAAAGTAGAATCA GATCATGATTTATGTGGACAGAAA ATTTCTCTTTTAAAAATACTTTTTAT ACAGTCATCATTTTCATAGAGGGGG AAAAAATCTTTATAATACCACCAAT TAAACACTCAATAGCATTTTACTGT ATTTCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGTTTT AACAGATCCCATACTGTAAAATAA TCATCGTTTACAGCCTACAGTCGA AGCTT (SEQ ID NO: 234)
CTP31A	No significant match		GGGGCAGATAAAAACTTAATGT AAAATTTACCTCTCAGAAAAATTT CCAGTATGCTATACGGTATCACTA ACTATAGTCACTATAGTATACAGTA GATCCCTAGGATTTATTCATGATG TACAGTCGAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTACGAA AAGCATCAAAGCATCTTTATGGTC AGCTTAAATTTGGTACACTAGATT GTACAATTCATGAGGGACTCTGTA ACATGTATAACATTCAGGCTTATC CAACAATAGTGGTGTTCACCCAGT CCAACGTTTCATGAATACGAAGGCC ATCACTCTGCTGAACAGATCTTGG AATTCATAGAGGACCTTATGAATC CTTCAGTGATCTCCCTGACACCCA CCACTTTCAATGAACTGGTTAAAC AGAGAAAACATGACCAAGTCTGGA TGGTTGATTTCTATTCTCCATGGT GTCATCCATGTCAAGTCCTAATGC CAGAATGGAAAAGAATGGCCCGG ACATTAAGTGGACTGATCAATGTG GGCAGCGTAGACTGCCAACAGTA TCATTCTTTTTGTGCCCAAGAAAAT GTTCCGAGATCCCTGAGATAAGAA TTTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCGTTC TTGCCGCGTCTGTTCAAACCGGCA CGGTCTGATCCCGGAAATACGGC CTCAACATGTGCCGGCCAGTGTTT CCGTCAGTACGCCAAGGATATAG GCTTCATTAAGTTGGATTAAGTGA ACTTCCTTGAATGGGTCATCCAAG ATACCTACCTTAACTGCAGATGTC CAAGATACCTACTTTGATGCCAAC TCATTGTATATAAAATAAAATACT CCAATTATGAGTGTTTTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAATTAT TGAAACAAAATTAACGTAAGTAGA ATCATGTGCAACAGTGTCTCTAAC ATATGGAAGAGGTAAATATGAATT TTATACAATAAGGTATATTATCCAC TGTAACAAATTTCCAATAATTTGGC ATTTATCTTTCACAAAATGTCTCCC AAATTCTAAGCAAAGTATGCAAATT GGAGATTAACCTCTAAACAGGCATA ATTATCTTCTTATCCAGTTTTTCTG AAGAGACTGAAGAGTTCAGGTCTG ACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTTCATT ACTGTCAAAGGCATCAACCAGATT TGGGAATTTGTTAAAAGGTTAAAA ATTCATACAAAACCTGCTGTAAATT AAGACAAAGGTAGATTAAAATGCA TCATTATCTGTCTCTTAAATAAAGT AATGCTTTCCATAAAAAGCAAAGG TGGGCTTTTGCCTTGATGCTGACC AAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTCAGGATCAGTTCC GTGGCACCCCTCTGACCACAGACT GGGAGCAACACGCATCTGTGGCA TTAAAAATGGAATTGGCAACTTC ATGACATTGGAATGCATATCACAC TTACAGTGTCTAGACTTTCCTATGT GTGCTCAGTTACAAGTAGTGAAGC AAAAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGCCAT AAATGTGAAAAGCAATACTCTGAA ATAAAGATTTTTGTTTTTGCCTA GCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCCTCT ACATATGCTCCCAAATTACCTTCTA AAAAGGCTGTATTAATTTACTTTCA CCAGTAGTATTATGAGAGTGCCCA TGCCCTTAGCCTTTTAAATTCAC TATGAGCAATCTTTAAATCATGTAC TAAATCTTATAGCAAAGAATAGG GCCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTCTT CTATGTGATCACTGAGTAAGTTCA GTCACCTCCCATCATCTAGATTG GAGATTTCCAAATTTATGGCCTTT CCTAACTTTGAAGTCCTTATTTCTA ACTGCCTACTAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTTGCT ATGTTGCCAGGCTGGTCTTGAAC TCTGGGATCAAGCAATCTGCCTGC CTTGGCCTCCTAAAGTGCTGGGAT TACAGGTGTGAGTCACTGTGCCTG GCCTCATATAGTCACTATAACAGC CTACTAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAGAGA AGTAGAAATTGAATGTGGAACATT AACCATTAAAAATCATACTTTTGAA TGTGCTGAGGTCATGAATTGTTTT TACCTTCTTTGTAATTTGTGTTTT CAGATTTTCTGTAGTTAGCATATAT TCTATAATCAGAAAAAGATGCTTC AAGTTTTTTGCAGATTTACAGAAT TTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTGCA AAAACTTGAAGCATCTTTTCTGA TTATAGAATATCTGCTAACTACAGA AAATCTGAAAAACACAAATTACAAA GAAGATAAAAACAATTCATGACCT CAGCACATTCAAAGTATGATTTTT AATGGTTAATGTTCCACATTCAATT TCTACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGACTG ACACTGCAGTGTGTCTTGTGTTGT TGATCCCTGATCTAGGCCTCGGCT TTTCAAACCTGCAGTTGATCAAAC GGGATATGCTTCGGCTGAATCTGC TCTCTGGTGCTTCTCTTTAATCGTT TTCTCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAAGCT T (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGTCCA AATAGCATAACCTAATTGCATTCAA AACCATTTTCAAATCCATCTTTAAA CTAGTCAGAAAACAGGTTATTATTT TTTTAAATCACTTAACACTGAACAG ATAAGACCTCTTAAAGGCAGCTG ACTATATCATGTCACCATCATAGC CAATACAACATTTTTGCCATACTTC CTAAAAACCTTTTCGCATACACTG ATCATGCTACTTATCAGCACTTTTT AACATCCTGACCAAAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTTCGGGGGG AACAGCTACTAGATGAATTTAAGG GTTTTATGCACCTTATAGAAGTTAT AGCAAAAATAGTTTTAGTTGATTC ATTATAAATAACGTTTTCAAGAACC TGTGCAAACTGTCAATAATTTCTT AAAGCACAAATTGATCAGAAAAATC CATGATTGTTTCAGCCTTCACACCC TTCTTCATGTAAGAACACCCTTCT GTACATCTCACAGTTACTTATTAG GTTGAAAGGTATATGGTGAATGGT CATTAGACGTCTCGACAGCCACCT GCTGCTGACCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCAGTGCAAGCCA GGAACATTGCAGAATGCTAAATTT ATCTGCTAGGTGATGATATTGAAC GATCTAGACAATAATTTACCTTAC TTAAATAACAATGAACAGAATTCCT TTTTTCCACTCTGAGTGGATATT CTGTCATCTCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match		AAGCTTCGACTGTCGCATCAATGA ATGTTTTAAGTAATAACTTTGCTGG TTATCAGCTTGATGGTGCATTAATT TTATGGCTCATTTCTTTATTTTGA CCATTGTCGGATTCTTCATTTTATA TTGGACGATCCCCAATCGAACGGT ACCAATTTTTTCAGCTGTGATTGC GGCATGTTTCAACGCGACCGTTTT TGAAATTTTAAACATTTATTTGGC TGGGTCATGAGTAATTTCAACCAGC TATGAAATCGTTTATGGTGCTTTTG CAGCAGTTCCTATTTTCTACTTTG GATCTATCTGTCTTGAATATCATT TTATTGGGTGTAGAAGTGAGTTAT GCACTCACCGCCTTCCATTCTGGT (SEQ ID NO: 250)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTTTAT TTTTGCACTATAAATAGAGTTCCT AGTCCCATTTTGTTACATAATATAT GAGATAACAGAGAACCTAAATTC ATTTGGTGAAAATCAAGTGTGTAG TATACCTAAATACCAATGAGCTAG TAAGACTTGTAAGGCACTGAAGCT AAGGCTAACAGCAACAGAGTCCTT TATGAAAATAATTTTCAAGACCACAA CGCATTCTCTGATGGTGCATTCCC CTGGGACAGTCGAAGCTT (SEQ ID NO: 251)
CTP64B	No significant match		CATCGCAGACATTTATTTTAGTTTT GTTAATTTCAAATATTCATTAACCT CTTGATCAGATTTAAGGCAGAGA AAAGATACACGCCCTGGTTAACT GAACCGGGGTTTAGATAGTGTAGT CCACCCTGGGTTCACCAGGGAG ACCTCACCCGAGATGACAGGTCC GGTTGCTGGTGACAGTCGAAGC TT (SEQ ID NO: 252)
CTP65A	Pig mRNA for endoplasmic- reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript)	X16951	CCATTTAAATGTTTTATTTTCTT TTTAACTAGATTGTGAAGTGCCA CTGAAATAGGCAATGTTGGCAAAA CAATGTCTGTTACAATAAAATACAT TAGACATTTAAATAAATAACCTTAA AACTACATGGGGGGACATGAAC CCAGTCGATTGAATCTGGAACAAT GTTTTCTGCACAAGCGAGAACAGG CATACCTCTTGTTAAGACTGATGT AAACAGAACCATCGGAACCCTACA GTCGAAGCTT (SEQ ID NO: 253)

CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACCTTTATTTGCATA TTAAAAAATTGTGCATTCCAATAA TTAAATCATTTGAACAAAAAATG GCACTCTGATTAACTGCATTTTAA CAGCCTGCAAGATACCTTGGGCC AGCTTGGTTTTTTACTCTAGATCTC ACTGTCCTCCCACCCAGCTTCTTC CTTCACCAACATGCAAGTTCTTTT CCTTCCCTGCCAGCCAGCCAGAC AGGCAGATGGGAAAGGCAGGCGC CTTCGTTGTCAGTAGTTCTCCATT CTTTGATGTGAAAAGGGGCAGCA CAGTCATTTAACTCGATCCAACC GCTTTGCATCTTACAAAGTTAAAC AGCTAAAAGAAGTAAAATAAGAAG GCAATGCTTGTGGAATGTACAGTG CATATTGGCGGCGCACGCCTCATT ACGATTGGGCTACTAAGCTT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACCTTTTGTTTAATGGG TCTCAAATTCTGTGACAGATTTT GGTCAAGTTGTTCCATTAAAAAG TACTGATTTTAAAACTAATAACTT AAAAGTCCACACACGCACAAAAA AAAAAAAAAAAAACAAATGGTCCAC AAACATTCTCCTTCTCTCTGAAG GTTTTACGATGCATTGTTATCATT GCCAGTCTTTTACTATTAACTTAA ATGGCCAATTGACACAAACAGTTC TGAGACCGTTCTTCCACCACTGAT TAAGACTGGGGTGGCAGGTATTA GGGATAATATTCATTTAGCCTACT AAGCTT (SEQ ID NO: 255)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATAAAT AGGAGAATGAATCAGAGTCCTCCA ACGCGTCCTCCCTAATGTCCCTTT GAGCTGCCTCCTCTTCCACTCTGC CTCAGCTTGTCCATGTCACTTCGC TCCAGAGCAGCCGCAAGAGCATC TTAACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAGTGA TATGACTGAAACCTCATTTAACCTT TTAGAACTACCAGGAGGAGGTTCC CAAGGATCCCAGG (SEQ ID NO: 256)

CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAACTC TTAATGCACGGCACAACTGCCAG ATGTGCAGGAAAGAAAGAATGGC AAAGTAAATGCCCCATATGAGTGC CATTGGGATGCCAAAGAGGGCAG ACAGCAAGCGGTAAAACCAAGTATT TTGTACAGTGAAGGTGGTGAAG CTGGCCTTCCAGATGCCATCAAAA CTGTGTGTTCTTCTGGTTCTGCA ATCACATCTTCAAATCAATCTTGA CCACGTCGTCGTTGAGAAGCTT (SEQ ID NO: 257)
CTP72B	No significant match		CCATTTTGGCTCTTAAAGAGCATCT TAAGTGAGAGATCATGACAATCTT TGGCCACTCCAGGTTTTCTCATCT ACTACATGATCTGTTCCCAACAAT AAGCCATTGAAATTAAGGTCTCC AGAAGTTTTATCTGGGGTCTGTGA TTGAAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 258)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTTCTTTT TATAGACATTACACACAACACATAT ATAGTGACACAAACACAAGATTCA ACACTTGTAAGATTTTTTATTTGCC AGTTTCTTAATTGGATTACTGGCAT CAGGGTGGAACTTTAGAGGAAG AGAGCCAGGTAGCATGCATTTCTA GGGCCTACTAAGCTT (SEQ ID NO: 259)
CTP73B	No significant match		CCCATAAGAAACATCTTTAAACAT TCAGAATACTCAGGATAATCAAGG CTAATATTCCTATAAATTCCTTACG TGTATTATGTACATTAGAAAAAGT GTAAATTACTCAAATATTATACTCA AAACCCCTTATAGTCTGCTAACTT GCATGTAGAAACATCTGAAGTAAC ATGCTGCCTACTAAGCTT (SEQ ID NO: 260)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTGGAT CCTTTCCTATGTTGAAATGGAAGA ATTAATGAGCTTACATTAATTAGTA TTGTAATGTGTAAAGGAAGCCCAG CAAATTTTTTGAACCTTGATGAT CCCAACGTATTTACCATTTGATGTT AAAGCAAAATAAATCACCATTTTTT TA (SEQ ID NO: 261)

CTP75C	No significant match	AAGCTTCTCAACGGCCTCCACCTC CTTTCTGCCCTCACAGCCTCCTGG CTCTGGCCCAAAAAGTGATTCAAT TGTAATTATCATGGTTTTCTGCAT TAAAATGGCCATTTCTGG (SEQ ID NO: 262)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGGGCTC CTGTGGAGGCCTGCTGGGACCAG GACTCCTAAAGCGACGANTTTTTN TGGAAGGCTTTGGTCCAAGGCCA TTTTTGCCGGCTATAAACGGGGTC TCCGGAACCAAGGGAGCACACA GCTCTTCTTAAAATTGAAGGTGTTT ACGCCCGAGATGAAACAGAATTCT ATTTGGGCAAGAGATGCGCTTATG TATATAAAGCAAAAGAACAACACA GTCACCTCTGGCGGCAAACCAAA CAAAACCAGNAGTCATCTGGGGA AAAGTAACTCTGGGCCCATGGAAA CAAGTGGCATGNGTTCCGTGCCA AATTCCGAAGCAATNTTCCTGCTA ATGCCATTGGACACAGAATCCGAG TGATGCTGTACCCCTCANAGGATT TAAACTAACGAANAANCAATAAA TAAATGTGGATTGCGNTCTTNGG (SEQ ID NO: 263)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCAAAA TTGTACAAAATGGCCATAAGCGGC TATAAAAAATTTCTTTTTCGGAACA CGTGGAAATTCAGAAAGAACAACA AAGCAGGTTATCATTTACAGTGT AATGGAAAAGCTCTCTCTGAGGCA GGAATCACAACTCTTCCTTCTTCTT CCCCAGTCTCTCGTGGTCTCCTTC CCGGAGCGCTCGAATGAACTGG TAAACCCCGATTCCGTCCGATCGC (SEQ ID NO: 264)

CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGACACA GGAAATTCCTTTTGTTAATGTTACCT GGCTTTTTGGTGGAGTTGGCTTTG CTGCAGCAATATTCAGATTGAAAA AAATGGGTTTGGGTTCACTGAGTT TAAAGGGATGATGATAAAAAGGAG GTTCTTCTTCCTCTTCATCCCGAA ACATGAGGCTTATTCACTATTACAT CATCATCTTCTTTACTCTGTGCGAT CTGTTTGCATTTCTCAAGTTAGTTC TTCTATAGTNGCTCCTCCTGATTTT TTAGCAACTTTCTCTTCTATTGTGG GTGGAGGTGCACGCTTTTAGGTTT GGCGGGTAAAAGCTT (SEQ ID NO: 265)
CTP79B	No significant match		CATATATATTCTTTTTTATTTCTTGT TATACCTTCCCAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTTCA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 266)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATATT CTTTAAAGGAACCTTAACAAAACCT TACACTTAATAATGTAATCTCACC ATGTTCTAGTCAAAAATTTACTAC ACAGACTCAGTAGCGGTAAAAGCT T (SEQ ID NO: 267)
CTP81A	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GGCCATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)

CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAGGT CATGATTCTGAGATGATTGGAGAC CTTCAAGCTCGAATTACATCCTTA CAAGAGGAGGTGAAGCATCTCAA ACATAATCTTGAAGAGTGGAGGG AGAAAGGAAAGAAGCTCAGGACTT GCTTAATCACTCGGAAAAGGAAAA GAATAATTTAGAGATAGATTTAAAC TATAAGCTTAAATCATTACAACAAC GGCTAGAACAAGAGGTGAATGAA CATAAAGTAACCAAAGCTCGTTTA ACTGACAAACATCAATCTATTGAA GAAGCAAAGTCTGTTGCAATGTGT G (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGAAG CAGAAGGAGAACAAGCCAGGAAA ACCCCGAAAACGCAAGAAGCTTG ACAGTGAGGAGGAATTTGGCTCT GAGCGAGATGAGTACCGGGAGAA GTCAGAGAGTGGAGGCAGCGAAT ATGGAACTGGACCAGGTCGGAAA CGGAGGCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAAAAT TATGAGCAGAGAAAACCTCAAGGG CTCAGAAGAGACCAGGGATCTGG AAGAAAAATTGAAAAGGAAGTTAG AAGAAAACAAGATCTCAAAGACAG AATTAGATTGGTTCCTTGAAGACT TGGAAAAGGAAATCAAGAAATGGC AACAGGAG (SEQ ID NO: 271)
CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGATTCA CCAAACAAGCTCTACACGCTGGTT ACCTACGTACCTGTCACCACTCTC AAAAATCTACAGACTGTTAATGTG GATGAGAACTAATCGCTGATTGTC AAATAAAGGTATAAACTGCTCCA TG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCTGT GGGCTGGGGTCTCAAAGTGTGTT GCCCCACTACTCAACTCTGCCATTG TAATGTGAAAGTAGTCACAGACAA AATATAAAGAAATGAGTGTGACTG TGTTCCAATAAACTTTATTTACAA AAGCATTCAAGTGGGCTGGATTTGG CTTTTGGGCCATAATTAATCCCC TCTGGTAAATAATCACTATTTTAG CTGGATCATGAGTACGTGGAAGCT T (SEQ ID NO: 273)

CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATATTT ATTAGATAAATATTAGAGGTTGTCA CATCATCTAACTACATACAGCTTT GCAAGACTAGAAATCACAATTAGT TTTTTGACCAGTTTAAAGTATGAAA TGATTGCATTGTACATACGATGTA CAAAGACGATGATGGTTTCTGTGG GAGTTACTTCAGGCTGCACTGGTG GGTGTGTTTATGTGTGTACGTGGA AGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGACCT CCCATGTTCTAATTCTGATTGTTTA ATCCAAGTGGGAGGGTAAACGGG AGACTCTTTGGCCTGTCAGTGACA AAATGGTTTGTAAGAAAGAAAAAAT AAATACGATATACAAGTAAGTATAA CTAGCACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGAAGAGCCTTGTTTTG TCATATTACCAGAGTTGGTTTTCT GGTTCCTTCTCATTTGGGTAGGCT CTGTCAGAGAGAAGGTCTAGGGC TGAAGGCTGTTGTTTCAATTCTTT TGTCCTCAAGTGGTGTCCCTTGAT GTAGCACTCAAGCTT (SEQ ID NO: 276)
CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGATGT ACAACCTTAAAAATGTGAAGTTTGTA GCTTTAACTTTTTGTAATAAAAACT AATAACACTGGCTTAAGTGCTGAC TTGAAATGCTATTTTATAAAGTTTG GATGTAAATAATCAATCGAGGTCA GCAGTTTGTATATGTAGGAGACAT AGCTTCCTCCCTGCACCCCCATT TTTTTAAAATTTGAGGTGCTTCCTG TGTGTTTTTATGTTAGAATTGTTCT CCCTCCTCCTACACGTGGTCACC TTTGTTTTAAATAAACTGTCCTTG G (SEQ ID NO: 277)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTGTGC TTTTTCTGTGGGACCATTCATTTC AGGAGCAAAGAGCACCATGATTC CAATCTTGTGTGTGTTTACTAACC CTCCCTGAGGTTTGTGTATGTTG GATATTGTGGTGTTTTAGATCACT GAGTGTACAGAAGAGAGAAATTCA AACAAAATATTGCTGTTCTTCAGTT TTGTTTGTGGAATTTGAAATTACTC AAATTTAAAATAAATTACTGGACTG TGG (SEQ ID NO: 278)

CTP99A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 279)
CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCATA GGAATAATTGTGGCAGACACAATC CAGTGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAGAAAGGAAGACA GGCAAACAAGTGTTTTACAGGAGC AACAGACTTCAAGGTCACCCCCAC AAGACACCCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTCGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGTCT CTATGCCGAAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGTTTG ATTTTAAGTTTTTATATAGTTCTTA GTTTTGAAGAAATCCTTCAAGAAC AGTTTCTCTAAAGAGCATGTTTTAA TTAAATGCTAATTAATTACCTTTCT TAGTTTTCCAATTTAGTAGGCCAC TTTCAATGTCTATTAAAGTGAAATA AACCTTCTGAACTTAAACATTTTTA AATCGATTAATAATTGTGTCAAAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTTTTTTCAAACGGAT TTGTAAAACTGTATTTCTTACACT GTGCACAAACCTTTTATACTAAATA AATATCAAACCTACATTCTTCAGAAA GATGTTTCTAGTATTTTCTTAGGT CACTTCCATATGTAGTATGTACAG TGAGACCACTTTTTAAAAAGCAAT GACTTAGGCAAACCAACCCTAATG GTTTGTTAGACCATTTCCCTGTTTT TAATTAATAATCATAGGGTTGTGC TTCTGTATAAAGTTTGTACATTTCA CAATGTAAATACTGACATT (SEQ ID NO: 282)

CTP109P	No significant match	<p> ATGCAACCACACGGAATTTATTGA ACATTTTCACAAGTGATTTTCATTAA AGGAAGGCTTTTTTCGTGCCTATAT TGGTTACCATCACTTTTGCCCCTA TCACAATCTCATGGTGTAGTCCTT GCATGTAGCAGGAACCAACAAAT GTCTGCTAAATTGACAGATGGAGC CCCAGACGACCTAAAACCTTGCACT TTAGAAGCACTTACTTCATCCTGA GCTATTATGAATAAGGAACTCAAG TGACTGTTAAAAGCATTCTACTGA TGAGTTGGTAATGTTCTAAAGCAA CATATCTCAAAGGAAAGGATATTG AGTTTGTCTCCACCATAAAATCCT ATTTTAAACAAAGGTACTACTTAA AAATGGTCTTCCAAAGGCCTCAGC AGAGGTTCTAAAGAGATGTGACAA TATGCCGAAGCTT (SEQ ID NO: 283) </p>
CTP110A	No significant match	<p> AACATATAAAAACATTTATTCACATA GGAATAATTGTGGCAGACACAATC CAGTGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAGAAAGGAAGACA GGCAAACAAGTGTTTTACAGGAGC AACAGACTTCAAGGTCACCCCCAC AAGACACCCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTCGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGTCAT CTATGCCGAAGCTT (SEQ ID NO: 284) </p>
CTP111A	No significant match	<p> AAGCTTCGGCATAAACGATCCATT CTCCTCGGCCTCCCAAAGTGCTAA GGTTCCAGGCGTGAACCACCATG CCCAGCCTGTTCTTTTTTTATCTC TAGGTGGTGCTCTCCAGCTGTAGT AGAAATAGCATTTGTATTGGATCT ATTTTTTTAAATAGGGACTAAATAC AGACCATTTTGTAGAGTGAAATG CCAAACAAGAACGAGATTTTTCTC TTGGCT (SEQ ID NO: 285) </p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTTAATAGAAACA ACAAAAGATCAAAAGTGATGCCTT GCTACTACTGTACATATCAGTTGG CCTGCCCCATAGCACACCTCAGA CCATCCTCTCCAGAGGAAGAAAG GCTGGCCTCCCCAACCCCTGCAG GAAAGGGCGGTCTTGTCCCATAC CACATACCACATCTGCAGAGTCTA AAGTCTTGTTATAAGCATGACAAT AGTACAAAAAAGATTCTGTTTTCA TGGATCCCCACTACAGCCCGGA CCTAAAATGGCGAGGCGCTCACTT CTGCTTAGAGAAATATTCTTTGCT CTTCTGGACATCAGGCTTGATGGT ATCACTGCCAGGCTTCCAGCCAG CTGGGCACACTTCCCCATGCTTGT CAGTAACTGGAAGGCCTGAACC AGTCGCAGTGTCTCATCCACAGAG CGACCAACAGGAAGGTCGTTTACA GTGATATGCCGAAGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTATTTA AAAATCTGATCCACTAAAACCTTAG CGTTTTCCACCAACTCGGGGTGC GGAAACCTTCACAGGCTTCACAAT CTTTTGCTTAGGTGCTGCCTTTGT GGGAGCCTTAGCAGCAGCCATTG CTGTCTTTTATAGATGCTTGCTTAG CCTTTTTTGCTTCCTTGGCAGCCC TGATGGCCTGTTCTCGTTGAGCCT TCCTAACTTCAGGTTTCTGATTCTT CTTAGCCATTATATCAGCAAGAGA TGCCCCAGTGATGGCCCTCTGGA ATTTGACTGCACGGCGGGTCTTT TCTTCTGAATTTCTTCCGACTGTC CCTTTTTGTGCTTTCTTCTGTAGAG GACAGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)
CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGACTA AGGGAGAGCCAAAGTTGGCAATC CCATTAATCTTACAACCTCCTAAAT TATGGCAATCACAATGCCTGCCTG AATGAATATAGCAAGTCCTAAAGG ATGTCTTCTGTGAGGGCAGATGGA AGTTTACTTCAACTCAACTCCATCT ACTATTTAAGGGAAGGATAAGTCA AAGTAAGAGTTAATTATTTCAACAT GGTTTGTTCCATTGATTTAACC ACACTATGGACCCCAAGCAGTT AGGTAAAAGGGATTTCTAGAAGC TTAATTATGCCGAAGCTT (SEQ ID NO: 288)

CTP116A	No significant match		AAAAGAGCATACTTATCAGTTGAA TGGGGATAGAGGTTTTAGATATTT TCCAAAATATTTATAAAACACTTCA TTGTTGAGAAATCACTTACAGAAT GGTGGCTATCAAACAAATAATTAT AAATTTTTAAAGCACAAGTCACAT GTTTTGTAACCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTGAAA ACATCAGATATGTTTTGGAAAAGT CTTAATTTGAGAACAAGTGAAGGA AGTTAATCCAGAATCTATATGTAGT TAGCTATTAATGATGATGCTTTATT GACAGTATATTGCTAATATATTTCT TCATGAAATCTGAAGTTAAATAGTT TCGTTGTGGAATAGTGTCAGTGT ACATTTCCCTTACGAAGTTCAATAA ACCAGCTTTGCCATAAAAAAAAAA GCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTAAAGCTGATGT CTTATGACTTTTTATGAGTCGAAAT TGTTTTGATTTTCAGCAAGTCAAATC TTGTAAAGGCCCGCGTATTTTTTTT AAGATTATATGAAGTCTGTGCAAA AGCTTTTAAAGAAATGCCTCTGC CTTGCTGCAATACATGCAATGTA CGTTAACTTCGTCTCTGTCCTCAG ACACTGTCCGATTTACTTCCTTGT TTTCCTTTTTCTTAAT (SEQ ID NO: 290)
CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAATAGTGTTTTAT TAACTACCACTGTTATAATACAC TTTAAACGTACAATAAGGTAGCCT TTAAATTTGAGGTGGTCTTAAGAA TAACAAATGAACAGAATCCAAATT TTTGAAATAGGTGAAGTCTGTAG TTATAGGTATACATTTAGGAAAATT GTATAGCTTTTACAAGACCAGCAA TGAAACTTTATTTGTACATTTTTTT AATAATTGAAAATATAAACAATAAT TAAAAAATAAAGAAAAATACAGCAT AATAAAAAACATACATTTCTCAATT AAATGTACTGGATACATATAAATTT AAAGGGAAGAAGCAAAAAAGGAA AATGGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAAAA AGCTT (SEQ ID NO: 291)

CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCN AAATATCCTCGAAAGAGCGCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAACT ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTTT TCACCAT (SEQ ID NO: 292)
CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTTGGGACTGCTT TTGATTAATGCAGTTATCCAATTTA AGTGTTTTTACTTTAACTCAAAGTA AAAAGAAATTCTCACATGGTAACT ACTCTATTTAAATGGTCCTGGAAA CATTAAACAGCTTTCTGCTGCTTG CTTAATGGTAATACCTTTGATTTCT TGATTCTAGGACATAGCTGATTTA TTAGGTAAAGTACTCTGTCAATTTT ACCTTCACCCAAGACTGTCATGTT TAAAATACTTTAGCTGTGGGAGAA ATCCTTGTCTGTTTTTATTGTGAGA GGAATGGTCATCCTCAAAGTCTGT TTCTACTACATAATGTGGACTAATT ATTTTTTCTATCACAGTATTAACAA ATGGATTTATTGTAAATACAAAGAA GATATTAATATACTATTCTTATGTC (SEQ ID NO: 293)

CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGAACT TCGTAAGGGAAATGTTACAGTGAC ACTATTCCACAACGAAATTATTTAA CTTCAGATTTTCATGAAGAAATATAT TAGCAATATACTGTCAATAAAGCA TCATCATTAATAGCTAACTACATAT AGATTCTGGATTAACCTTCCTTCAG TTGTTCTCAAATTAAGACTTTTCCA AAACATATCTGATGTTTTCAATTAA ATGTCACAGCTAAAATAAATTCAC ACAGGAGTTACAAAACATGTGACT TGTGCTTTAAAAATTTATAATTATT TGTTTGATAGCCACCATTCTGTAA GTGATTTCTCAACAATGAAGTGT TTATAAATATTTTGGAAAAATCTA AAACCTCTATCCCCATTCAACTGA TAAGTATGCTCTTTTAAAAAAGCTT (SEQ ID NO: 294)
CTP126A	No significant match		AAAGAAAGTAATTATGGAAGTAA TTTTTAACATTGTAAATACTAAAT GATCCTTCAGTTGTAAGTTGATAT ATATTTGTAACCTTTGTGAAATTGT ATCCTTATGAAAAACCACTTTTGT GGAAGAGAGAATCCAACATGTAA TATTTAATTAAAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAGCT CTGGAGCAACTTTTATCATGAGTC AAATATATTAACACATTGATGTCT TCTTGGTATATCTGAAAACAAGAG GTAGAAGTCCTGTTGAGAGTCTTT AAAATAAACTATTTTACAAATGTA AAAAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E-cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCG AAATATCCTCGAAAGAGCGCCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAAC ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTT TCACCAT (SEQ ID NO: 296)

CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACATAG CCAGAGAGGAGGCAAAGAAAATG AAAACAAATAGTCTTCAAATGAG GAAAAAGAGGAAAAACAAGTGAGG ACACTGGTTTTACCTCCAGGAAAC ATGAAAAATAATCCAAATCCATCAA CCTTCTTATTAATGTCATTTCTTCC TGAGGAAGGAAGATTGATGTTGT GAAATAACATTTCGTTACTGTTGTG (SEQ ID NO: 297)
CTP133B	No significant match		CCAAAAAGAGCCATGCCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACANTAAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 298)
CTP134A	No significant match		CCAAAAAGAGCCATGCCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACATTAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 299)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAAATA ACAATTCAATTGCATGTAAAGTAAA CCAGTTGTAGCAATATAAAAATAC AGAATTTTGAGAAAATCTGGCAAA TTAAACCTGTATCTAAATGCAGCA TATTCTGTGATACTACGGAATGAA GCTT (SEQ ID NO: 300)
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAAGTG CATTAGCAGGGCAGAGAGAGAGG CAGCAGCAGACTCCCTGCTGAGC TGGGAGCCAACTTGGGACTCGAT GCCGGGACCCCAGGATCATTACC CGAAGCTT (SEQ ID NO: 301)

CTP144B	No significant match		GGGTAAATCCGTCCAGTTTACTGT AAATATGCCTTTGACAACTGGTA ACTCATGTCCCATCCCAGTCCCGA GTACTGGACCAGGGAACTCCAG CCACAGTTGAGGGAAGGCCACCT GTTGGCTCTGGGGCAGCAGGTCA TCCAGTGGGCTTCAGGAGTCACC AGGCCTCTGACCAGTTCCTCCCCA CCAAGCAGTTTCAGAGTTGTCCGC CAAGTCTATTTACACCTCTCGTG TATGCCGAAGCTT (SEQ ID NO: 302)
CTP145B	No significant match		GGAAGATAATAATAGGATTTTATT TCTAAAATTTATCTTAGAGCTTTCA AAGAGTATAACACACAGATCTTTA CCACCACACCCCCCTTGCTATAC AGGAAACAACCAAGTTGTGAGAAC ATTTATCATGCACAGACACATCAG GGCTTGCAGGTGCTACACAGGAA TCACAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine-threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTGGAAGTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAAAA CATTTATTCACTAGGAATAATTGTG GCAGACACAATCCAGTGAAAGCA GCTCAATCCTGCTCAGTTAGGCTA GTTGAAGAACCATACTTTAAAAAA AGAAAGGAAGACAGGCAAACAAG TGTTTTACAGGAGCAACAGACTTC AAGGTCACCCCCACAAGACACCC TGCACAGCAGGGACGGGGACAGG GAGGATGACCTCTTAGGGCCTGT GCCTTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGTGTC TCCTCTTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTACATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAACCCTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 306)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAGATA CATACAAGAATAGCCAGACTACAT CAACAAAGTGTCATATCATGCAG CGGCTTCAAATCCGAAGTGGTGG TTTGATGTGAAGTGGTAGTATAGC TGTCGGAGGAAGCACACGATGAG GAATGTAGAGCCAATAATTACGTG TAATCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATACCCC ATCGGAGATTGTAAAGATGTCTC ATAGTATGCCGAAGCTT (SEQ ID NO: 307)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAACCCTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 308)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCTAAT AACTAAAATACTCTAAGTTGGAATA ATCGACTCCGACGCTTTATTTTTC CAAGTTGCCTTTTCTTTAAACACC TTTTCTGATTTAATACGGAATAAC GGTCTTCTTTTCCACTCGATAACT ATGGTGCCTCTTGGGTTACTGCT TAAGAAAAGTTGGTTTGGGCCATT TCG (SEQ ID NO: 309)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTGAAGATACAA GTTAGAGTTCAATCAGTACCAAAG GTAAGGAAAAATTAACCTATGT CACAGTCGAGTTTTATCCTGCTTA AAATTGTCAAGTAGAGAAAATTCT GAAAATATTTATGAAAAAGCTATTC TCATGCTGGCAGCAATGGTTAAAA TAAAGATATTTCTTTATTAATAAAA GAAAAAGCCTAAAAACAACCTTTA AATAATCAAGTTGCTGTGAAGTGA AAGGGTTTGAAAGTGATGAACTG AAGTTAAAAGTTCTCTATATGTGTG TTTTACTTTAAGCAAATTAGACATA GTGAATAAAATTTGAATTTTCAGAC AAATTATTTGCTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACACAGA GAGAGAGAGGCAGAGACACAGGC AGAGGGAGAAGCAGGCTCCACGC AGGGAGCCCAATGTGGGACTCGA TCTGGGAACTCCGGGATCAAGCC CTGAGCTGAAGGTAGACACTCAAC CGCTGAGCCACCCAGGTGCCCTG ATTTGCTTTTTAAAGAAGTCTCCCC CTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATAACGGTGTGAGG TTACAGTCCAGTTTTGTGTGCTTTA CTACACGGTTTGTTACAGGACTT CTGTGCATTGTAAACATAAACAG CATGGAAAAGGTTAAATACCTGTG TGCAGATTGTAAGATCTGGTCCGG ACTTGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTTGTA TCATAGTCATGCGGTCTTATGTAT GATAAACAGTTGAATAATTTGTCCT CAGACTCTTTACTATGCTTTTTTAA AATTAAGAAAAATGTAAATATAGTA AAAATCTTCCTATGCAATTAACCTG G (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTTTTT CTGTGAACTGAAGTTGGTCAAGGA TTGTAGGCAGCAGAAGGCTCACA AAACGGTCAGTTGAGGAACAGTTA GCAGTATCTGCAACATCCTCAAA ATTTCTTGAACAACTCTAAGGCT AGAAGAGAACAGTTTTCTGATCTG TCCAGAGGTTGGTTTGACCAACGC AGTAGAGCCACAGTAGGTTCTAAA CATTTAGAACGGCTTCCCAGAATG GTGTTGCCAGATGGAGACTGTTCA AATATCATCTGAGTGAGCACGTGG CGCAGCTGAGTCACTGAACAGAA GGCAAGAAGTAATTCTAAACCTT TGAAGAAGAATCAGGATCCTTTCC ATTGAGAAGACCTAATACTTGACT AAGACATGAAGAAAAGTGCTCATA CCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGACTG TTGGAGGTATGGACGCACACAGG AGGGCCAGGCCAAGGCACGAGTT TTTCAGTGAAGGGGGTAAAGCATC ACAATTTAAATGTTTGCAATTAA CTGGTTTGTAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGATTCA TGCCATAAGTTTATTTACAAACATG TTGTGTATGTTGAATTCAAGAGATT GATCCATTTTTTCAGAGACTGCACC TCTTAAATGTTTCCTTTTACATCT GTTTAGTGGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAAATA GTTTATTCACCTCTGTAGTGGAAA ACAAGGAGAAATAAAATCTGCTT ACAATGGCCAAAATTTATGGAGAA GCCCTAAAGTTGCTTTCCCAAAT CACAAATCTGATTCAAGAGAAGGA AAAAAATGATGAAAAACATCTCAT CACACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAGAAG CTT (SEQ ID NO: 315)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATTTAAT GTTCCATAATTAACGTACACGA CCTAGTCTTGGGACATAGAAGCCA GTGAGGTGAGTTTGGAGCAGTCC CAGGAGCCAGGAGTCGAGTTTTC ATTGGCCTTTTTTTTCTTTTTCTTT TTGTCATTCTGTTTCATCTAAGATTA TTTGGATACTTGGCACAATCTGGC TCTGCTGCTAAGCTT (SEQ ID NO: 316)
CTP202C	No significant match		AGAAAAAAATTGATAATTAGGTG CAGATAGAAAAATATGAATTAGAAG AGGTTAATTCAAGTGATCAGCCTG AAAGTTCAGCTTCATTAGCTTTGT GGTAAATCCACCACTTCAGATAGT AACTAAAGTAAATTTTAAATTTTCA AAGAATAAAGTAATCCCTGAAAAG AATTCACCTTTTTTCCCAGAAGAAG CTTATAATTAATAAAAAAAGCTT (SEQ ID NO: 317)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAGGAA GTAAATACGGACAGTGTCTGAGAA CAGAGACGAAGTTAACGTACATTG CATGTATTGCAGGCAAGGCAGAG GCATTTCTTTTTAAAGCTTTTGCAC AGACTTCATATAATCTTAAAAAAA TACGCGGGCCTTACAAGATTTGA CTTGCTGAAATCAAAACAATTTCC ACTCATAAAAAAGTCATAAGACATC AGCTT (SEQ ID NO: 318)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAAGAT AGGCATCTCTTACAGATGGGGGT GGGGGCTGTTGTTACTGGTGAAG ATAGGCATCTAGCCAGAGCTGCC CAGACTCCTTCAGTGAGTAGATAA TGTCGGCGAAGGCTGAGAGCAGG GGCTTGGACTGGTACTCTATGCCA TGCTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTAATT GTGTCGAGGCATCGTAAGCTT (SEQ ID NO: 319)
CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATTTTAA GATCAACCAAACATATTTAATATAA AAACCTTTTAAATATACAAACTGTAA TCACAATTGCATCCACGTAGCAGC GAGGGAATGGGGTGTTCAGGAA GCTT (SEQ ID NO: 320)

CTP215B	No significant match		AAGCTTAGAGGGCAGTAAACAGGA GCGTCCCCAAGAAAAAGAGGAAA TTCTCTTCTAAGGAGGAGCCACTT AGCAGTGGACCTGAAGAGGCTGC TGGCAACAAGAGCGGCAGCTCCA AGAAAAAGAAAAAGCTCCAGAAGC TATCCCAGGAAGATTAGAATGGAC ATTTTACCAGGTGGGGCAAACCCA CATGATTCAAACCCACCCTTATA TCCAATAAAAACAAATTCACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACTTTATTT GAGAAAAACAAAAGGTAAATGTAT CAAAAGAGCATACAGGTTAGTGTG CAGGGACGGTCAGTGATGGCTAC TGAGGTGAGGATGTGGGCTAAGC AGGGCTAAGGCCTTTACTTGGCTC CAGACTGCTCCGACTTTCCAGCTT CTGGGCCCCCAATCTGGGCACGT GCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTGGG GTTGTCATGACCTTGGCTATGACG CCCAGCATTTCGAGGTGGCTCCC TCTATTCTTTACTTTGGGCATCATA GAAAACGTGTCTCTGGGGGATTAA TCTTAGAGAAAAATAAAGCCTTTCT GCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCAACCAAGCTTTCAACA AGCACTGTTCTTCTAATAATTCCTG CCACAATATATTAATTTCTTGAGC CTACTCCAACGTTCTCTGTGCCAA CGGCACACTGCTGTCCAGCGTTC ACCAAGCTT (SEQ ID NO: 324)
CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACACCAA CATATACAAACACCGAGTGACTAC AGTACATGCCGAGGTAAGAAAAAGT ACATTGCGGGGAGACTATCACTGAC ACTCAAGCCATTTTTATTTCGAATA TGTTTTGCTTTCACCTTTCACAGT GCCAAAAAAAAAAAAACCTAGTCA CAAATTGGAGTAAATAAGAATCGG TGCCAGTTGACCT (SEQ ID NO: 325)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAAGCC TTCAAGGAAGAGGGTAATGAGGG GGAAGAAGTGCTGTGCCAAAGTG ACAGCATTTCAGTGAGGAATAAAGA AAGGAGCTCAGTGGTAGCAGGAT GTTGAGCTTCCAAGAAAATCTGGT GGTGGTGAGAAAGTGGCTGCTGT GCACTGCAAGGAAACAGAGCGAT TAAAGAAAAGAGATGTGACAGGGTA GGTGGAAAGAGATAGCCAGAAGTT AGAAATGGGTTACACTGAAGAAGT AAATTATTTGATTAAACAATAAGTA AATATACTGGGGATAACAAAAGCC TGATTTCTCCACTGTCTCAGAAGG GATTTGCAAGTATGG (SEQ ID NO: 326)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGTTA AATGGAACCTGGAAACCTCTTCCT GGGATTATTCCTTAAGCAAGGCAG TGTCAAAGGCAACCCTCCCAGCAA GACTTCAGAAAACAGCTGGCAGAA CTACAGGATCTGGTGTCTGGTGTG TAAAATACTCTCCTCCCTGTTCAAA TGATTCAGAACATGTGCAAAGTGT GCTAGCTTTTCATCACATATACATAA CAGCATTATGTATCAAGTTACCCT GTTCAAACAAGGAGCAGGCTTCCT CTTTTTGACTTAAATGACATGAAGT GAGAAAAAAAATGAGAATAACCNT CNNGGGAATTATAGAGGGTTATAA TTCTATCCCNACTATTTCAATAAAA GCCATCACGGG (SEQ ID NO: 327)
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAAGG TAAAACTGTTGCCGAAGTTGCTGC GTTACAAGAGCGTATCCCAGAAAC CATAAGGCTACAACGCCGAAATTG GGAGCTACATCAGTTTGAATCGAT TCAAGAAGGTCATCGCTCAGGCC GTCCCAATACTGACCTCAAAC ATCAGGCTCAAATCTTAGAGTGGG TCAACACAAGCCCACTCAATGCAG AACAAATCCGAGTCAAACGTCATG AAAAACACGGTGTGTCCGTGTCTG TTGAAACTCTTCGCAAGTTTTTGC GAGATTCAGGCATGGTCTTCAAAC GCACCCGCCACAGCTTG (SEQ ID NO: 328)

Please substitute **Table 8** with **Table 8** amended as follows:

Table 8			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTTCNAG ACACGCAGCTGACCAAGGAG TGAGGGAGGGACCAGGTGTG CAAGCTAATAAATAGAGGAGG GGGAGACTTCCTGGAGCTGT AGCCATTCACTCTTCATTCTT CTCAGGCATGAAGGCATCTCT TTTCTGACCAAAGCTT (SEQ ID NO: 329)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATA TTAGTTTGCATTTTAGTGACA GGTGTAAAGAGAAAGGCCCT TCTTCCCTTACTGGGACAAAT CTAGAAATCTTACACAGATGT GCAAATAAAGCTCGCGTGGT GTTC (SEQ ID NO: 330)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 331)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACT AAGAACTGTGTTATTGAGAAG GTTATCACTGTGGACAACCTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 332)

CTP8A	No significant match	AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTC TTCTTGTTTTGCAGATTGAGC AGATAATTTCTTTGAAGGTG ATAGTTTCCTAAATTGGATAAA ACCGTGGCTGCCATTATATTC ACAGAAAATAAAATGAAAAC TCAGTTAATTGTGGATTTG (SEQ ID NO: 333)
CTP17G	No significant match	CATATATATTCTTTTTATTTCT TGTTATACCTTCCCAAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTC AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 334)
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG G (SEQ ID NO: 335)
CTP25D	No significant match	AAGCTTGCACCATATATATAA CTCTTGGGCAGAGGGTCTGG CATAATAAGTAGATACTCAG AAATATCTGTTGGATTGTGT GATTTAATTATTTTGTGTTGC TTCTTTTAAAGATGAGCACTTT CTATTAGATATTTTTTGATCA AAAAAAGATATTTTTTGATC ATACAGATTTAAGCAGGATTT TTATTAATTCGTTTCTCTTCCT GGTTGG (SEQ ID NO: 336)
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGA AAAATTTCCAGTATGCTATAC GGTATCACTAACTATAGTCAC TATAGTATACAGTAGATCCCT AGGATTTATTCATGATGTACA GTCGAAGCTT (SEQ ID NO: 337)

CTP36A	No significant match	CAAGTTTTACCATTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACA AATTTCCAATAATTTGGCATT ATCTTTTCACAAAATGTCTCCC AAATTCTAAGCAAAGTATGCA AATTGGAGATTAACTCTAAAC AGGCATAATTATCTTCTTATCC AGTTTTCTGAAGAGACTGAA GAGTTCAGGTCTGACCAAAG CTT (SEQ ID NO: 338)
CTP47G	No significant match	AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTA CCTTCTAAAAAGGCTGTATTA ATTTACTTTTACCAGTAGTATT ATGAGAGTGCCCATGTCCCTT AGCCTTTTAAAATTCACATGA GCAATCTTTAAATCATGTACTA AATCTTATAGGCAAAGAATAG GGCCTTGCCCCTGCCCTGT T (SEQ ID NO: 339)
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCT CTTCTATGTGATCACTGAGTA AGTTCAGTCACTCCCATCATC TCTAGATTGGAGATTTCCAAA TTTATGGCCTTTCCTAACTTTG AAGTCCTTATTTCTAACTGCC TACTAAGCTT (SEQ ID NO: 340)
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAATAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTACCTTCTTT GTAATTTGTGTTTTTCAGATT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCA AGTTTTTGCAGATTTACAG AATTTTGT (SEQ ID NO: 341)

CTP53A	No significant match	AAACAAAATTCTGTGAAATCT GCAAAAAACTTGAAGCATCTT TTTCTGATTATAGAATATCTGC TAACTACAGAAAATCTGAAAA ACACAAATTACAAAGAAGATA AAAACAATTCATGACCTCAGC ACATTCAAAAGTATGATTTTTA ATGGTTAATGTTCCACATTCA ATTTCTACTTCTCTATTATTGC CTACTAAGCTT (SEQ ID NO: 342)
CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAG GCCTCGGCTTTTCAAACGCA GTTGATCAAACGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTTAATCGTTTTC TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTT CACCTCTGGAATTAACGTTGA GAAGCTT (SEQ ID NO: 343)
CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCTG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTAC CAATTTTTTCAGCTGTGATTG CGGCATGTTTCAACGCGACC GTTTTTGAAATTTTAAAACATT TATTGGCTGGGTCATGAGTA ATTTCAACAGCTATGAAATCG TTTATGGTGCTTTTGCAGCAG TTCCTATTTTCTACTTTGGAT CTATCTGTCTTGGAATATCATT TTATTGGGTGTAGAAGTGAGT TATGCACTCACCGCCTTCAT TCTGGT (SEQ ID NO: 344)

CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTA CATAATATATGAGATAACAGA GAACCTAAAATTCATTTGGTG AAAATCAAGTGTGTAGTATAC CTAAATACCAATGAGCTAGTA AGACTTGTAAGGCACTGAAGC TAAGGCTAACAGCAACAGAGT CCTTTATGAAAATAATTTTCAGA ACCACAACGCATTCTCTGATG GTGCATTCCCCTGGGACAGT CGAAGCTT (SEQ ID NO: 345)
CTP64B	No significant match	CATCGCAGACATTTATTTTAG TTTTGTAAATTTCAAATATTCA TTAACCTCTTGATCAGATTTA AGGCAGAGAAAAGATACACG CCCCTGGTTAACTGAACCGG GGTTTAGATAGTGTAGTCCAC CCTGGGTTCCACCAGGGAGA CCTCACCCGAGATGACAGGT CCGGTTGCTGGTGCACAGTC GAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTA ACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAG TGATATGACTGAAACCTCATT TAACCTTTTAGAACTACCAGG AGGAGGTTCCCAAGGATCCC AGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTTGCTCTTAAAGAGC ATCTTAAGTGAGAGATCATGA CAATCTTTGGCCACTCCAGGT TTTCTCATCTACTACATGATCT GTTCCCAACAATAAGCCATTG AAATTAAAGGTCTCCAGAAGT TTTATCTGGGGTCTGTGATTG AAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 348)

CTP73B	No significant match	CCCATAGAAACATCTTTAAA ACATTCAGAATACTCAGGATA ATCAAGGCTAATATTCCTATA AATTCCTTACGTGTATTATGTA CATTCAGAAAAAGTGTAATTA CTCAAATATTATACTCAAAACC CCTTATAGTCTGCTAACTTGC ATGTAGAAACATCTGAAGTAA CATGCTGCCTACTAAGCTT (SEQ ID NO: 349)
CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAAT GGAAGAATTAATGAGCTTACA TTAATTAGTATTGTAATGTGTA AAGGAAGCCCAGCAAAATTTT TTGAAAACCTTGATGATCCCAA CGTATTTACCATTGTATGTTAA AGCAAAATAAATCACCATTTTT TTA (SEQ ID NO: 350)
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAA GTGATTCATTTGTAAATTATCA TGGTTTTCTGCATTAATAATGG CCATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCCTAAAGCGA CGANTTTTTNTGGAAGGCTTT GGTCCAAGGCCATTTTTGCCG GCTATAAACGGGGTCTCCGG AACCAAAGGGAGCACACAGC TCTTCTTAAAATTGAAGGTGTT TACGCCCAGATGAAACAGA ATTCTATTTGGGCAAGAGATG CGCTTATGTATATAAAGCAAA AGAACAACACAGTCACTCCTG GCGGCAAACCAACAAAACC AGNAGTCATCTGGGGAAAAG TAACTCTGGGCCCATGGAAAC AAGTGGCATGNGTTCCGTGC CAAATTCCGAAGCAATNTTCC TGCTAATGCCATTGGACACAG AATCCGAGTGATGCTGTACCC CTCANAGGATTTAAACTAAC GAANAANCAATAAATAAATGT GGATTTGCGNTCTTNGG (SEQ ID NO: 352)

CTP77D	No significant match	CAATTGGTTTAGTTTTATTTC AAATTGTACAAAATGGCCATA AGCGGCTATAAAAAATTCGT TTTCGGAACACGTGGAAATTC AGAAAGAACAACAAAGCAGGT TATCATTTACAGTGTAAATGG AAAAGCTCTCTCTGAGGCAG GAATCACAACCTTTCCTTCTT CTTCCCCAGTCTCTCGTGGTC TCCTTCCCGAGCGCTCGAA TGAAACTGGTAAACCCCGATT CCGTCCGATCGC (SEQ ID NO: 353)
CTP79B	No significant match	CATATATATTCTTTTTATTCT TGTTATACCTTCCCAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTC AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 354)
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG GCCATGGTAGCGGTAAAAGC TT (SEQ ID NO: 355)
CTP92A	No significant match	GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGA TTGTTTAATCCAACCTGGGAGG GTAAACGGGAGACTCTTTGG CCTGTCAGTGACAAAATGGTT TGTAAGAAAGAAAAATAAATA CGATATACAAGTAAGTATAAC TAGCACTCAAGCTT (SEQ ID NO: 356)

CTP99A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACCTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 357)
CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGT TTGATTTTAAAGTTTTTATATAG TTCTTAGTTTTGAAGAAATCCT TCAAGAACAGTTTCTCTAAAG AGCATGTTTTAATTAAATGCTA ATTAATTACCTTTCTTAGTTTT CCAATTTAGTAGGCCACTTTC AATGTCTATTAAAGTGAAATAA ACCTTCTGAACCTTAAACATTTT TAAATCGATTAAAAATTGTGTC AAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTTTTTCAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTT ATACTAAATAAATATCAAACCTA CATTCTTCAGAAAGATGTTTC TAGTATTTTCTTAGGTCACCTT CCATATGTAGTATGTACAGTG AGACCACTTTTTAAAAAGCAA TGACTTAGGCAAACCAACCCT AATGGTTTGTTAGACCATTTTC CCTGTTTTTAATTAAAAATCAT AGGGTTGTGCTTCTGTATAAA GTTTGTACATTTCACAATGTAA AATACTGACATT (SEQ ID NO: 359)

CTP109P	No significant match	ATGCAACCACACGGAATTTAT TGAACATTTTCACAAGTGATT CATTAAAGGAAGGCTTTTTTCG TGCCTATATTGGTTACCATCA CTTTTGCCCTATCACAATCT CATGGTGTAGTCCTTGCATGT AGCAGGAACTCAACAAATGTC TGCTAAATTGACAGATGGAGC CCCAGACGACCTAAAACCTTGC ACTTTAGAAGCACTTACTTCA TCCTGAGCTATTATGAATAAG GAACTCAAGTGACTGTTAAAA GCATTCTACTGATGAGTTGGT AATGTTCTAAAGCAACATATC TCAAAGGAAAGGATATTGAGT TTGTCTCCACCATAAAATCCT ATTTTTAAACAAAGGTACTACT TAAAAATGGTCTTCCAAAGGC CTCAGCAGAGGTTCTAAAGAG ATGTGACAATATGCCGAAGCT T (SEQ ID NO: 360)
CTP110A	No significant match	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAA AAAGAAAGGAAGACAGGCAA ACAAGTGTTTTACAGGAGCAA CAGACTTCAAGGTCACCCCCA CAAGACACCCTGCACAGCAG GGACGGGGACAGGGAGGAT GACCTCTTAGGGCCTGTGCC TTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGT GTCTCCTCTTCTGTCTATCTAT GCCGAAGCTT (SEQ ID NO: 361)
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGA ACCACCATGCCCAGCCTGTTC TTTTTTTATCTCTAGGTGGTG CTCTCCAGCTGTAGTAGAAAT AGCATTGTATTGGATCTATTT TTTTAAATAGGGACTAAATAC AGACCATTTTGTTAGAGTGAA ATGCCAAACAAGAACGAGATT TTTCTCTTGGCT (SEQ ID NO: 362)

CTP116A	No significant match	AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAA AACACTTCATTGTTGAGAAAT CACTTACAGAATGGTGGCTAT CAAACAAATAATTATAAATTTT TAAAGCACAAAGTCACATGTTT TGTAACCTCCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTG AAAACATCAGATATGTTTTGG AAAAGTCTTAATTTGAGAACA ACTGAAGGAAGTTAATCCAGA ATCTATATGTAGTTAGCTATTA ATGATGATGCTTTATTGACAG TATATTGCTAATATATTTCTTC ATGAAATCTGAAGTTAAATAG TTTCGTTGTGGAATAGTGCA CTGTAAACATTTCCCTTACGAA GTTCAATAAACCAGCTTTGCC ATAAAAAAAAAAAGCTT (SEQ ID NO: 363)
CTP124B	No significant match	ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCA TTAATAGCTAACTACATATAGA TTCTGGATTAACTTCCTTCAG TTGTTCTCAAATTAAGACTTTT CCAAAACATATCTGATGTTTT CAATTAAATGTCACAGCTAAA ATAAATTCACACAGGAGTTAC AAAACATGTGACTTGTGCTTT AAAAATTTATAATTATTTGTTT GATAGCCACCATTCTGTAAGT GATTTCTCAACAATGAAGTGT TTTATAAATATTTTGAAAATA TCTAAAACCTCTATCCCCATT CAACTGATAAGTATGCTCTTT TAATAAAAAAAAAAAGCTT (SEQ ID NO: 364)

CTP126A	No significant match	AAAGAAAGTAATTATGGAAC AGATTTTTAACATTGTAAAATA CTAAATGATCCTTCAGTTGTA AGTTGATATATATTTGTAACT TTGTGAAATTGTATCCTTATGA AAATACCACTTTTGTGGAAGA GAGAATCCAACATATGTAATAT TTAATTTAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAA ACAGTGTATATAGGTCTAATA ATAGCTCTGGAGCAACTTTTA TCATGAGTCAAATATATTAAAC ACATTGATGTCTTCTTGGTAT ATCTGAAAACAAGAGGTAGAA GTCCTGTTGAGAGTCTTTAAA ATAAACTATTTTTACAAATGTA AAAAAAAAAAGCTT (SEQ ID NO: 365)
CTP133B	No significant match	CCAAAAAGAGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACANTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 366)
CTP134A	No significant match	CCAAAAAGAGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACATTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 367)
CTP143B	No significant match	AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAAC TTGGGACTCGATGCCGGGAC CCCAGGATCATTACCCGAAG CTT (SEQ ID NO: 368)

CTP144B	No significant match	GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAA CTGGTAACTCATGTCCCATCC CAGTCCCGAGTACTGGACCA GGGAACTCCAGCCACAGTT GAGGGAAGGCCACCTGTTGG CTCTGGGGCAGCAGGTCATC CAGTGGGCTTCAGGAGTCAC CAGGCCTCTGACCAGTTCCTC CCCACCAAGCAGTTTCAGAGT TGTCCGCCAAGTCTATTTAC ACCTCTCGTGTATGCCGAAGC TT (SEQ ID NO: 369)
CTP145B	No significant match	GGA CTGATAATAATAGGATTT TATTTCTAAAATTTATCTTAGA GCTTTCAAAGAGTATAACACA CAGATCTTTACCACCACACCC CCCTTGCCCTATACAGGAAACA ACCAAGTTGTGAGAACATTTA TCATGCACAGACACATCAGG GCTTGCAAGGTGCTACACAGG AATCACAATGCTGTTCCACA TCATGTCTTCTGTTATGCCGA AGCTT (SEQ ID NO: 370)
CTP149B	No significant match	AGGAAGAATAAAAAACATATAA AAACATTTATTCACTAGGAATA ATTGTGGCAGACACAATCCAG TGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAAC CATACTTTAAAAAAGAAAGG AAGACAGGCAAACAAGTGTTT TACAGGAGCAACAGACTTCAA GGTCACCCCCACAAGACACC CTGCACAGCAGGGACGGGGA CAGGGAGGATGACCTCTTAG GGCCTGTGCCTTCGCAGAGG TGCTCGGCGGATGGGTGTGG TCTTCTTGGGTGTCTCCTCTT CTGTCATCTATGCCGAAGCTT (SEQ ID NO: 371)

CTP150A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 372)
CTP154A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 373)
CTP164A	No significant match	AAGCTTCGGCATAACGGTGTG AGGTTACAGTCCAGTTTTGTG TGCTTTACTACACGGTTTGGT TACAGGACTTCTGTGCATTGT AAACATAAACAGCATGGAAA AGGTTAAATACCTGTGTGCAG ATTGTAAGATCTGGTCCGGAC TTGCTGTGTATATTGTAACGT TAAGTGAAAAAGAACCCCCCT TTGTATCATAGTCATGCGGTC TTATGTATGATAAACAGTTGA ATAATTTGTCCTCAGACTCTTT ACTATGCTTTTTTAAATTAAG AAAAATGTAAATATAGTAAAA TCTTCCTATGCAATTAACCTG G (SEQ ID NO: 374)
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGA CTGTTGGAGGTATGGACGCA CACAGGAGGGCCAGGCCAAG GCACGAGTTTTTCAGTGAAGG GGGTAAAGCATCACAATTTAA AATGTTTGCAATTAACCTGGT TTGTTAAATATC (SEQ ID NO: 375)

CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAAT TCAAGAGATTGATCCATTTT CAGAGACTGCACCTCTTAAAA TGTTCTTTTTCACATCTGTTA GTGGATCAAAAGCTT (SEQ ID NO: 376)
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCCAATCACAAAT CTGATTCAAGAGAAGGAAAAA AATGATGAAAAACATCTCATC ACACAAAACCTCAGTGTGGTGT CTCTGATAGTCATCAGCCAGC AGAAGCTT (SEQ ID NO: 377)
CTP202C	No significant match	AGAAAAAAAAATTGATAATTAG GTGCAGATAGAAAATATGAAT TAGAAGAGGTTAATTCAAGTG ATCAGCCTGAAAGTTCAGCTT CATTAGCTTTGTGGTAAATCC ACCACTTCAGATAGTAACTAA AGTAAATTTTAAATTTTATAAG AATAAAGTAATCCCTGAAAAG AATTCACTTTTTTCCAGAAG AAGCTTATAATTAAAAAAAAAA AGCTT (SEQ ID NO: 378)
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATT TTTAGATCAACCAACATATTT AATATAAAAACCTTTTAAATATA CAAACCTGTAATCACAATTGCA TCCACGTAGCAGCGAGGGAA TGGGGTGTTGCAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGA GGAAATTCTCTTCTAAGGAGG AGCCACTTAGCAGTGGACCT GAAGAGGCTGCTGGCAACAA GAGCGGCAGCTCCAAGAAAA AGAAAAAGCTCCAGAAGCTAT CCCAGGAAGATTAGAATGGA CATTTTACCAGGTGGGGCAAA CCCACATGATTCCAAACCCAC CCTTATATCCCAATAAAAACA AATTCACAGG (SEQ ID NO: 380)

CTP222D	No significant match	AAGCTTACCAGGTGAAGAGT GGGGTTGTCATGACCTTGGC TATGACGCCCAGCATTTCGAG GTGGCTCCCTCTATTCTTTAC TTTGGGCATCATAGAAAACGT GTCTCTGGGGGATTAATCTTA GAGAAAAATAAAGCCTTTCTG CTG (SEQ ID NO: 381)
CTP306B	No significant match	AAGCTTCTGCTGGTATGAAAA GCCTTCAAGGAAGAGGGTAA TGAGGGGGAAGAAGTGCTGT GCCAAAGTGACAGCATTCACT GAGGAATAAAGAAAGGAGCT CAGTGGTAGCAGGATGTTGA GCTTCCAAGAAAATCTGGTGG TGGTGAGAAAGTGGCTGCTG TGCACTGCAAGGAAACAGAG CGATTAAAGAAAGAGATGTGA CAGGGTAGGTGGAAGAGATA GCCAGAAGTTAGAAATGGGTT ACACTGAAGAAGTAAATTATT TGATTAAACAATAAGTAAATAT ACTGGGGATAACAAAAGCCT GATTTCTCCACTGTCTCAGAA GGGATTTGCAAGTATGG (SEQ ID NO: 382)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAA GCAAGGCAGTGTCAAAGGCA ACCCTCCCAGCAAGACTTCAG AAAACAGCTGGCAGAACTACA GGATCTGGTGTCTGGTGTGTA AAATACTCTCCTCCCTGTTCA AATGATTGAGAACATGTGCAA AGTGTGCTAGCTTTCATCACA TATACATAACAGCATTATGTAT CAAGTTACCCTGTTCAAACAA GGAGCAGGCTTCCTCTTTTG ACTTAAATGACATGAAGTGAG AAAAAAAATGAGAATAACCNT CNNGGGAATTATAGAGGGTTA TAATTCTATCCCNACTATTTCA ATAAAAGCCATCACGGG (SEQ ID NO: 383)


CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAACTGTTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTAC ATCAGTTTGAATCGATTCAAG AAGGTCATCGCTCAGGCCGT CCCAATACACTGACCTCAAAC TATCAGGCTCAAATCTTAGAG TGGGTCAACACAAGCCCACT CAATGCAGAACAAATCCGAGT CAAACGTCATGAAAAACACGG TGTGTCCGTGTCTGTTGAAAC TCTTCGCAAGTTTTTGCGAGA TTCAGGCATGGTCTTCAAACG CACCCGCCACAGCTTG (SEQ ID NO: 384)
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[illegible]

In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned representative so that prosecution may be expedited.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 400742000200. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: April 5, 2002


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Version with Markings to Show Changes Made**In the Specification**

On page 50, the paragraph beginning [00316] has been amended as follows:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT
ACG ACT CAC TAT AGG GCG 3') **(SEQ ID NO: 385)**

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA
GTA CGC GGG-3') **(SEQ ID NO: 386)**

Please substitute **TABLE 1** with **TABLE 1** amended as follows:

TABLE 1

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt <u>(SEQ ID NO: 1)</u>	cgcttccgcaacaagtcctt <u>(SEQ ID NO: 2)</u>
C2	c-erb B-2	AB008451	507	gtgtttgatggtgacttgggaat g <u>(SEQ ID NO: 3)</u>	gtactccgggttctctgctgtag g <u>(SEQ ID NO: 4)</u>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgtc tt (SEQ ID NO: 5)	ccatgctgcataaaggtgtga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtggtggt g (SEQ ID NO: 7)	cgagaggtagattgcccttct tt (SEQ ID NO: 8)
C5	Metallo- thionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgcttt gaca (SEQ ID NO: 12)
C7	Metallo- thionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaatttccc at (SEQ ID NO: 15)	tggaaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgcctttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21)	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcatcctcattggacct (SEQ ID NO: 23)	gctgttttgctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	tttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttctt g (SEQ ID NO: 27)	ttacatgagtgaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgttgttgaaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatggt (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaatttgaagcctttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttcttg a (SEQ ID NO: 35)	tgatggatacactgcatactct gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgtttctc ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF054833	301	tcacctccaactgattccaact ctgg (SEQ ID NO: 43)	gtctgttgccatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	ctgtgcaactcccaaatcgta tca (SEQ ID NO: 45)	gtgcataccctggctctctgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB032025	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttctctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF095638	260	agcggtcagtgtaaggaggt gg (SEQ ID NO: 49)	tgtcccagggcacgatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagag caaggt (SEQ ID NO: 51)	acctgggtccgaaacatcga ggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaattgaacccaaacaaa ggca (SEQ ID NO: 53)	cccgcatacttaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagacctgttgatc (SEQ ID NO: 55)	gcataaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatca aagac (SEQ ID NO: 57)	cacttcttctgtgaccacaat cca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgctgtcactggat gaaa (SEQ ID NO: 59)	caccaggtgccccactattc atgtt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgactatcatcagagcatgcc tcct (SEQ ID NO: 61)	tccatcctaggaccccgagat catgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggacccttccgcgactggtac c (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cggtccctgctggaggactt aaga (SEQ ID NO: 65)	ggatgacggggttctcaag cagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacacc gt (SEQ ID NO: 67)	ttgccaacagcctcaaagaa cgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaac cacttc (SEQ ID NO: 69)	tggcaaatacacagagaaa gccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagagggttcagccagt gcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagc gtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgttcggtttgtgaa ggg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaag gtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccct cgata (SEQ ID NO: 75)	tgtgtgtgcagggtgaagtgtt tgg (SEQ ID NO: 76)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgttgcctgcctcctggt ta (SEQ ID NO: 77)	ggtcagtgaaaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF211257	498	tgattgttcttctgccaccaaatt gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB020986	503	gccttaccctcagggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB026988	510	aggtgtccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcggtcacctactgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagcttttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF019759	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF039223	359	ctccagggtgggcttcgaggac gt (SEQ ID NO: 91)	tgggggtccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF032025	350	ttcttcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggaaggacgc (SEQ ID NO: 95)	tcacgtagcccacttcgtccac c (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggccacattgtgaaaactc agaaa (SEQ ID NO: 97)	gaccaagggaagggtgaaa agggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc (SEQ ID NO: 99)	tgccataggaagaaagtgg gctgttt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattgaaaatggagccttcag ggaat (SEQ ID NO: 101)	ataattccaagctggatggca gagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctgggatctcagctgcaggat tttct (SEQ ID NO: 103)	atcctttctctccttgcctctc ctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttctgctcctcatggcc (SEQ ID NO: 105)	cttaaatacagcccggcgca gcg (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtccttcatgttcaga gggtg (SEQ ID NO: 107)	ccagatgtgtcacccttgatga aggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttgagcagggtggttggga aaag (SEQ ID NO: 109)	gcaaatacacagaggaagc cttcgcc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagtggagctggtggcgtag gcaa (SEQ ID NO: 111)	ggcaaatacacaagaag ccctccc (SEQ ID NO: 112)
C57	p38 MAPK	AF003597	506	ctggtgacccatcttatgggag cagat	tttgcaaagttcatcttcggcat ctgg

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
				(SEQ ID NO: 113)	(SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaatgatgtgtttctgtgaaaaaaggcag gccccctgccaaaagggtccgaatcggggtccccctctgctggaggccac agcaaacctctcacagcccactggtcctaagagatgccatgtgtcca cccatcagcacaaactacgcggcaccctccaccaggaaggactat cccgccgccaagagggcgagggtggacagtggtagagtctgaaac agatcagcaacaaccgcaaagtgtccagccccagggtcttcggacag gaggagaatgacaagaggcgaacacacaacgtctggagcgccag aggaggaacgagctgaaacggagctctttgccctgcgtgatcagatc cggagttgaaaacaatgaaaaggccccaaggtagtgatccttaa aaaagccaccggtacatcctgtccgtccaagccgaggagcaaaag ctccttccgaaaaggactgttcggaagcg (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgtttgatgtgacttggaatgggggcagccaaggggctgcagagc ctccctcacaggacccagccctctccagcggtacagtggaggacct acggtaccctgccccctgagactgatgtaagggtgccccctgacct gcagccccagcctgaatatgtgaaccagccagaagttggccgcag cccccttgccctagaaggcccttgctcctcccgaccggtgtgc cactctggaaaggccaagactctgtccccaagactctctcccctggc aagaatgggggtgtcaaagacgttttgcccttgggagtgctgtggagaat ccggagtacctggcaccgggggcagagctgcccctcagccccacc ctcctcagccttcagcccagccttgacaacctgtattactgggaccag gatccatcagagcggggctctccaccagcaccttgaagggaaccct acagcagagaacccggagtac (SEQ ID NO: 116)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcttcagggctgcttttgcctatcctgacactaccgccac cgctgggacccaactatcttcagatacctgtgaactgtccttccgggct cgagtgcccaactaccaacgggatgccccatgtgcatgtcgcacaat caggggtgtgctccaaattactacccaatagctttagtgtcctgaaca acagcgttgtcctagagcatagcagccaatgttcgccaagatgtgcag cgctcaacagtgtccaatgaagataatgtcactcaggtgcggaccttct attgaagggtactgtgtgaaggagaggaacgcctgtgcgagaac attgtggccatctgaaggacgcacaactttcatccagaagaagcg gtcaagaacttcagtgtgtccaccctgactacggggcccgattcagg ctctttggacaaatacaatgtgtgagaaacctaagaacgcgattcacac ctttatgcagcatgg</p> <p>(SEQ ID NO: 117)</p>
C4	p53	AF060514	<p>acttttcgacacagtgtggtggtgccttatgagccacccgaggttggtct gactataccaccatccactacaactacatgtgaacagttcctgcatggg aggcatgaaccggcgcccatcctcactatcatcaccttgaagactc cagtggaacgtgctgggacgcaacagcttgaggtagcggtttgtgcc tgtccgggagagaccgcccggactgaggaggagaatttcacaaga agggggagcctgtcctgagccacccccgggagtagcaagcagc actgcctccagcaccagctcctctccccgaaaagaagaagccac tagatggagaatatttcaccctcagatccgtggcgtaacgctatgag atgttcaggaatctgaatgaagccttgagctgaaggatgccagagt ggaaaggagccagggggaagcagggtcactccagccacctgaag gcaaagaaggggcaatctacctctcg</p> <p>(SEQ ID NO: 118)</p>
C5	Metallothionein 2	AB028042	<p>gactccagccgccccttctgcccattggatcccaactgtcctgcgcgc ggggggctcctgcacgtgcgcggctcctgcaaagcaaaagagtgc gatgcacctcctgcaagaagagctgtgctcctgtgccccgtgggctg tgcaagtgtgccagggtgcacgtgcaaggcgcatcggaacagt gcagctgctgtcctgatgtggggagagcctattcctgatgaaataga gagcagctgtacaaacctacagttgtggggggtttttgtgctttgtttg ggccaactctgaccggttgctactacattct</p> <p>(SEQ ID NO: 119)</p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactcctgccacaatgtacaaaatgcaactctgtctt gcatcgactgacgcttgactgtcgcaaacagtgacctaattacttcaa gctctacaaaggaaacagagcaacagatggagcaattactgtggatt tacagttgctttgaatggagttaataattatgagaacccccaaactcca ggatgctcacatttaagttttacacgcccagaaggccacagaatttac acacctcaatgtctagcagaagaactcaaaaacctggaggagagtgt aggtttacctcaaagcaaaaacgttcactgacagacaccaagggaatt aatcagcaatatgaatgtaacactctgaaactaaagggatctgaaac aagttacaactgtgaatatgatgacgagacagcaaccattacagaatt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctccgctcgcctcgctc gctcgcctcgcctcgcctgggctcgagatggacccgactgctcctgc tccaccggtggctcctgcacgtgcgtggtcctgcaaatgcaaggagt gcaaatgcacctcctgcaagaagagttgtctcctgctgccccgtggg ctgtgccaaagtgtgccagggctgcatctgcaagggtgcgtcggaaca gtgcagctgctgtgcctgatgtgtgagaacacctgttctgatgtatata agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgttttctacattcccgttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcagagctggaattcccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcagatgccaggg acaaccactgagccccatactcctccccgtcactgacactgacctctg ttagccgtctctctccccatacgcactctgctagtgctcagatgacatcg ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtcccatgaaactgcccacccctatgtgtccctgctggtcctgtttccat ctcgggtggcaccatacaaggacacagcactctggcagcccaaattcct gcagagacgagggccctgcaggcagttggcagaagaggccggcga ggattcctgtccagctccggaagcttctctttagtaataaagcctgtct gtgggcgctgtctgtgtgagtgaggagggtgtcatgtcagttggg agtctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagccatcctgtttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgtatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcacgagacactc cctgagaaatacaacaccagagtaggagacaaaggaaccagctct ctggtggccagaaacagcgcattgcatagctcgcgctctgttagaca gcctcatattttgcttttgatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgattgtgatcgccaccgctgtccaccatccagaatgcagattt aatagtgggtttcagaatggcaaagtcaaggagcatggcacacatca acagctgctggctcagaaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtgatcggaggctccatcctggcctcgtgtccaccttc cagcagatgtggatcagcaagcaggagtagcagagtcgggcccct ccatcgtccatcgcaaatgctttagatcgactgcgagcagatgcgtag catttgcgtcatgagtgaaatccgaagtataaatggccctggcaaatgg ctagcctcatgaaactggaataagcgcttgaagaaatgttcttga agctngtatctgatatacagcantggattgtagaactgttgcgtatctg acnttgatccaagttaactgttcccttggtatatgttaataccgcctattcc aggattcttagaggctggcaagagctgaaccagttgcatttctgtcttg ccgtctaacagggttggaagggtccgagccttaggaccacttctctgt cttaccatgtttcctgccagaacaccgtgggtggttaattgccttgaa gttg</p> <p>(SEQ ID NO: 124)</p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagccctctgcccagacagtcaaatacatc tctgaaccccaagtgaagccagtagctcatgtttagcaaacccc gaagctgaggggcagctccagtggctgagccgacgtgccaatgacct cctggccaatgacgtggagctgacagacaaccagctgatagtccgtc agatgggtgtacctgatagctcccaggctcttcaagggtccagggtg tgccctccaccatgtgtcctcaccacaccatcagccgttcgctg ctcctaccagacaaaggtaacctactctctgccaatcaagagcccttg caaagggagaccccagaggggaccgaggccaagccctggtacga gcccattacctgggaggggtcttccaactggagaagggtgatcgact cagcgctgatcatcaatctgcctaactatctggacttgcgagctgtggc aggctactttgggatcattgccctgt</p> <p>(SEQ ID NO: 125)</p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatgcccccttcgcagtt tctggcagcagcggctccatgacatcaagcacaagggtctcggggc agccgatgacctggtgttgggtgcccgcgcccagatgaggaccac ctgtatcgggaggagatgttgagatggccagagtgggtgctgcat gaggtgcacacagcctattctgcctgctggccagccaagggtatg ttcaagacatcctgcggcagcagctggccagccaggtgctccgcatgc tccatgaggagcagggccacctttatgtctgtggggatgtgcgtatggc cgggatgtggccataccctgaagcacctggtggtgccaagctgagc ctgagtgaagagcaagttgaggactattttccagcttaagagccaga agcgctatcatgaagatatcttgggtgctgtgttccctatgaggtgaaa aagatggtgcagcaaaacagc</p> <p>(SEQ ID NO: 126)</p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagttagctatttctgggtaacc cagtctattaaagaaagaaagatactagatgagcatgatttgaagtc gaggagatgttgtaagtgaagaaatcaccagggtccgaagcgagc aagagaatcccaggacagagaatccaagacagaaagatcttcagg ggcctagaaatctgttgctatggaccctttaccaatgcccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggtgcacctctgtggggcttctgtggtgaaggagccttc gttattcacctcagcaagggcactcatccagtggtagtcgtgcagccg gacgcctggacagaggacagtggcttccatgcatgggagatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgtagccctc taccagtgccaggagctggacacctacctgatcccgagattccaga actgctgcagact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggaccccgagg aatgcacctgcatgtctggaggaaatctgtatctgtggagacaattgcaa tgtacaacctgcaactgtaaaacatgtcgaaaaagctgctgtcctgtg ccccccggtgtgccaagtgtgccagggtgcatctgcaaaggag gctcggacaagtgcagctgctgtgctgaaccgcatccgtggtgtggtg gctggcgggggcggtgtgtggtgatgccacagccccgaaatgtctgt acagtgcattagttgagaaactgaaattattgtaccatagggtatgctttta tataattgctcagagggtggtggtgacactcatgtaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgttggaaatataccccataagcgttactgcaactgttctcac ccccggaacagggtgaagagagctattctgtgtcccagggaaaatat attcacctcaagacgattccattgtgtacgaagtgcacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagctcagagaaccacctcagac aatgtcttagctgtcctcaaatgccgaaaagaaatgaaccagggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtggtcaggaagaac cagtaccgggttttattggagtgaaccctttccagtgcataactgcagc ctctgcctcaatggcacgggtgcagatctcctgccaagagaagcagaac accatatgcacctgccacgcggggtcttctaagagagcatgaatgcg tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagacttggctgctagaaatatctccttactcatggtcgaatcacaaag atttggatttggctagccagagacatcaagaatgattctaattatgtgt caaaggaaacgctcggctacctgtgaagtggatggccctgagagca tttcaactgtgttacacattgaaagtgtgtgtcctatggattttct gtgggagctcttctttaggaagcagcccctacctgggatgccagtcg attcaaagttctacaagatgatcaaggaaggctccggatgctcagccc tgagcatgcacctgtgaaatgtatgacatcatgaagacgtgtgggat gctgatcccctgaaaaggccgacgtccaagcagatcgtgcagctaatt gagaagcagatttcagatagaccaatcatatttccaacctgcga actgcagccccaaccagagcggcccggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaattgaagccttctcaaggagataatgctaaacaacgaaatgaag aaagaagaaaacattgcaatgcaaaaagggtatcaggatcctcgaat tcagcccatgtcataagttaggctagtagtaaccagcgctccgttctgc ggtggcgccaaaagggtactacaccataagcagcaacctggtgag cctcgagaatgggaaacagttggccgtgaaaagacaaggactctatta cgtctatgcccaagtcaccttctgctcaatcgggcagcttcgagtaag ctccgttcgtccgagcctatgctccattccccgagtggaacggagag agtcttactccgcgcgcgagctccgcggctcgccaaacctgctggc caacagtcctccactgggaggagtattgaattgcatccagggtcttc ggtgttcgtcaacgtgactgatccaagccaagtgcacacgggaccg gcttcacgtctttggcttact</p> <p>(SEQ ID NO: 131)</p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttctggaggtaagaaatggaagtgatagcagt tcaccattatttggcacatactgtggaactctgttgcagatcctatcttct cgaaacaacaaactatacctacggtttaagaccgatagcgcaacttcc aatcgtgggtatgaaattgtctggacctcatccctctggctgtgttggga acctttatggagacagtgttcttaccagccccggctatcccgccac ttacccaacaacactgactgtgaatgggccatcatcgctcctgttga agacctgtcaccgtcaccttttactttatcagcatcgatgatcccgagac tgtgtccagaactatctcatactctacgatggaccgatgtaatttccat ccttggaccatactgtggggcagacaccaacatagctcccttgtggcc tcttcacatcgtgtctcataaaatttcacgcagagtatgcagtgatccat ca</p> <p>(SEQ ID NO: 132)</p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgatggacgagaagtcaggggcacgaggct ggatggcctgaacctcatcgacatctggaagaactcaaacggagac acaagcactctactacgtctggaaccgcacggaactcctggccctcg accttacaccgtggactacctcttgggtctcttgagccgggggacatg cagtacgagctgaacaggaacaacgtgactgaccgtcactctccga gatggtggaaatagccatcaagattctgagcaagaacccagaggctt cttctgtggtggaaggaggcaggattgaccacgggcatcacgaggg caaggccaagcaggcgctgcacgaggcagtggaatggaccggggc aattgggaaggcaggcgctcatgacctcttgaagacacgctgaccgt cgtcactgcggaccactcccacgtcttcaccttggcgggtacacccc cggggcaactctatcttgggtct</p> <p>(SEQ ID NO: 133)</p>
C20	Pancreatic lipase	M35302	<p>actcagagagcatcctcaaccctgatggatttcttctacccctgtgctt cctacagggccttgaatctaacaagtgtccctgccagatcaagg gtgcccacagatgggtcactatgtgataaattgtgtcaagacaagtg atgagacacagaaatacttctgaacaccggagattccagcaatttgc tcgctggagatacggggttctataacattgtctgggaaaagagccactg</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			<p>gtcaggctaaagttgcttgttgaagtaagggaatactcatcaattca atatctcaaggggattctcaaaccaggctctactcattccaatgagttg atgcaaagctgatgttgaacaattgagaaagtaagttcttgaata acaacgtggttaaaccacaccttccaaagtgggtgcagccaagatca ccgtgcaaaaggaggagaggagaaaacagtgcacagctctg</p> <p>(SEQ ID NO: 134)</p>
C21	Apolipoprotein CIII	M17178	<p>agccctggaggaagaggacccctccctcctggccttatgcagggtta catgcagcagccaccaagacggcccaggacacgctgaccagcgtt caggagtccagggtggcgagcgggcccagggttgatgaccgata gctcagttccctgaaagactactgcagcagcttaagggaagttcact gggttctgggattcagcctctgaggccaaaccaactccagcctctg</p> <p>(SEQ ID NO: 135)</p>
C22	Interleukin-4	AF054833	<p>tcacctcccaactgattccaactctggtctgcttactagcactcaccagca ccttgtccacggacataactcaatattactattaaagagatcatcaaaa tgttgaacatctcacagcgagaaacgactcgtgcattggagctgactgt caaggacgtctcactgctccaaagaacacaagcgataaggaaatctt ctgcagagctgctactgtactgcggcagatctatacacacaactgctcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac</p> <p>(SEQ ID NO: 136)</p>
C23	Tissue inhibitor of metalloproteinases-1	AF077817	<p>ctgtgcaactcccaaatcgctcatcaggggccaagttcgtggggaccgca gaagtcaaccagaccgacttaaacggcggtatgagatcaagatgac caagatgttcaagggttcagcgcttggggaatgcctcgacatccgc ttcgtcgacacccccgacctggaaagcgtctgcggatactgcacaggt ccagaaccgcagcgaggagtttctggtcgccgaaacctgcgggac ggacactgcagatcaacacctgcagttcgtggccccgtggagcagc ctgagtaccgctcagcgccggggttcaccaagacctatgctgctggt gtgaggggtgcacagtggttacctgtcatccatcccctgcaaactgcag agtgacactcactgctgtgacggaccacttcctcacaggctctgaca agggttccagagccgacacctggcctgcctgccaagagagccaggg atatgcac</p> <p>(SEQ ID NO: 137)</p>
C24	Ubiquitin	AB032025	<p>gcagattttgtaaagaccctgacgggcaaaactatcaccccttgaggct gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggagggcacccgcctgaccagcagcgtctgattttgctgggcaaac agctagaagatggcgaactctgtcagactacaatatccagaaagagt ccacctgcacttggtgcttcgctgcgaggtggcatcattgagcctcac tccgccagctggccagaaatacaactgcgacaagatgatctgcgc aagtgttatgctgcctgcacccccgtgctgtcaactgccgcaagaaga</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			agt (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcgggtcagtggaaggaggtggactctgggaatgacatctacggca accccatcaagcggattcagatgagatcaagcagataaagatgttca aaggaccagacaaggacatagagttatctacacggctccttctccgc cgatgcggggtctccctggacatcgaggaaagaaggagtatctcatt gcgggaaggccgaggggaacggcaagatgcacatcacctttgtg actcatcgtgccctgggaca (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctggtccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgaggatgagtgctgaagcacacaacaattcacctcatctgcgga gtctggaggattcctgcagttcagtcgagggcgttcggataatgtagc ctgggcatctaagattgctgtagtcatgggcattccttccagtcagaa acctgtgcagtgggcacaaaacttatgttctctgtgaggaactaaaa gtatgagcgttaggacactatttaattattttatattgatatataatg tgatatggagtaatttatataagtaataagatatttatatttatgaagtgc actgaaatatattatgtattcatttgaaaaagtaacgtaaaatgctatgc ggctgaatatcctcgatgttcggagccaggt (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaattgaacccaaacaaaggcagagtacacagacactttatgttaa tgttgccccagggatacaaccgtcgtggtcagcccctcctccatcgtgg aggaaggtagtctgtgaacatgacctgctagcgtggcctccagc tccgaacatcctgtggagcaggcggctaagtaatgggcgctgcagtc tcttctgaggatccaatttcacctaacttctgcaaaaatggaagattct ggtatttatgtgtgaagggaatgaaccaggctggaataagcagaaaaag aagtagaattaattatccaagttgctccgaaagacatacagcttatagctt tccttctgagagtgtaaggaaggagacactgtcattatctcctgtacat gtggaaatgtccaaaaacttgataatcctgaagaaaaaagcagag acgggagacacagtgctaaagtccagagatgggtcatataccatcca caagggtccagttagaggatgcggg (SEQ ID NO: 141)
C28	Phenol sulfotransferase	D29807	gctccccagacctgttgatcagaagggtcaagggtggtctacgtcgcc cgcaacgcaaaagatgtagctgtctctattaccacttctaccgcatggc caagggtgcacctgacctgacacctgggacagcttctggagaagtt catggctggggaagtgctctatgggtcctggtatcagcatgtgcaggaat ggtgggagctgagtcacactcacctgttctcactcttctataggaca tgaaagagaacccccaaaaggagattcagaagatcctgaagttgtg ggcgctcctgccagaggagactgtggatctcattgtccagcacagt

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			<p>cttcaaggagatgaagaacaactccatggctaactacaccaccttatct cctgacatcatggaccacagcatttctgccttcagtgaggaaaggcatctc gggggactggaagaccacctcactgtggcccagaatgagcgcttga tgc</p> <p>(SEQ ID NO: 142)</p>
C29	GRP94	U01153	<p>aatcccagacatcccctgatcaaagacatgtgcgacgagttaagga agatgaagatgacaaaacggatcggatctgtgtgtttgttgagac agcaacgctgagatcaggctatctgctaccagacactaaagcatatgg agatcgaatagaagaatgcttcgcctcagttaaacattgaccctgatg caaagggtggaagaagaaccagaagaagaacccgaagagacaacc gaggacaccacagaagacacagagcaggacgatgaagaagaat ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat ctacagctgaaaaagatgaattataaattatactctcaccatttgaacct gtgtggagaggggaatgtgaaatttaagtcatttcttcgagagagactgtt tggatgtctcccgcagccccctctcccctgcactgtaaaatgttgggat tgtgggtcacagaaagaagtg</p> <p>(SEQ ID NO: 143)</p>
C30	E-selectin	L23087	<p>ttacacggtgtgtcactggatgaataattgccaaggagtttagggga aacaacttgggtcaagtattctatcaccaacatgcaaaaaaatatttaa atgcccacaggcgagtacatggggaatcctgtctaatactttgtgcaa ggattgctaacacagtcctaataccctttaccctgtgggattcagtgcat ttaaagtgttcttagagattttaaagtgttctttattgtcattggctaaagtac aatttccctaattctaattcagtgtaagtgttagagactttaaataatg catgttagagctatgatagggtaaaagttactatcagggactttgtttatg aagggaactctaattgttatctgtagtaaattcattttaaaggggcaaat gctgtcccagctattacgtgaatcagtgtaagtgtgaaatgtttactata gttgcttttaaaaacatgaatagtggggcacctgggtg</p> <p>(SEQ ID NO: 144)</p>
C31	gastric lipase	Y13899	<p>tgcactatcatcagagcatgcctccctactacaacctgacagacatgca tgtgccaatcgagtggtggaacgggtggaacgactgtctggccgacct cacgatgttgacctttgtcttccaagctcccaatctcatttaccacagga agattcctccttacaatcacttggactttatctgggccatggatgccctca agcggttacaatgaaattgttccatgatgggaacagataataagtagtt ctagatttaagggaattattctttattgttccaaaatacgttcttctcacacg tggttttctatcatgtttgagacacgggtgattgttccatggtttgatttcaga aatgtgttagcatcaacaatcttccattggtaattttgaatttaaatgattt ttaaatttggggcatctgggtggctcagtcggcctaagtcgtctgcctcgg cttaagtcagatctcggggctcctaggatgga</p> <p>(SEQ ID NO: 145)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C32	HSP27	U19368	ggaccctttccgcgactggtacccggcccacagccgcttctcgacca ggccttcgggctgccccggctgcccggaggagtggcgagtggttcgg ccacagcggctggccgggctacgtgcgccgatccccccgcggtcg agggccccgcccggccgcccggccgcccgcgcctacagcc gcgcgctcagccggcagctcagcagcggcggtgctggagatccggca gacggccgaccgctggcgcggtgctccctggacgtcaaccacttcgcccc cgaggagctgacgggtcaagacgaaggacggcggtgggagataact ggcaagcacgaagagaggcaggatgagcatggctacatctcccgcc gcctcactccaaatacaccctgccccctgggtggatcctaccctggc tcctcctcctgtccctgagggcactctcaggtggaggctccatgcc caagccagccaccagtcggcagaaatca (SEQ ID NO: 146)
C33	IL-10	U33843	cgggtccctgctggaggactttaagagttacctgggttgccaagccctgt cggagatgatccagtttacttgaggagggtgatgccccgggctgagaa ccacgaccagacatcaagaaccacgtgaactccctgggagagaag ctcaagaccctcaggctgagactgaggctgcgacgctgtaccgatttc ttccctgtgagaataagagcaaggcgggtggagcagggtgaagagcgc atttagtaagctccaggagaaagggtctacaaagccatgagtgagttt gacatcttcatcaactacatagaaacctacatgacaatgaggatgaaa atctgaaacgtgctggagaacaaacacccaggatggcaactctctc gactctaggacatgaattggagatctgaaaataccatcccgagatgta ggagagccgaccaactgcttgagaaccccgatcac (SEQ ID NO: 147)
C34	caveolin-1	U47060	tccgaggggacactctacaccgttcccatccgggagcagggcaacat ctacaagcccaacaacaaggccatggcggaggagatgagcgagaa gcagggtgtacgacgcgcacaccaaggaaatcgacctggtcaaccgc gaccccaagcatctcaacgacgacgtggtcaagattgatttgaagatg tgattgcagaaccagaaggaaacacacagttttgatggcatctggaagg ccagctcaccaccttactgtgacaaaatactggtttaccgctgtgctc tgccctcttgcatccaatggcactcatatggggcatttacttgcattc ttcttctgcatctgggagtggtgcccgtgcatgaagagttcctgattg agattcagtgcatcagccgtgtattccatctacgtccacaccttctgtga ccggtctttgaggctgttgcaa (SEQ ID NO: 148)
C35	H-ras, p21	U62092	accatccagctcatccagaaccacttcgtggatgagtagcagccccacc atcgaggactcctatcggaagcaagtggctattgacggggagacgtgc ctgctggacatcctggacacagcggggcaggaggatcagcgcctat gcgggaccagtagcatgcgcacgggggagggcttctctgtgtattgcc a (SEQ ID NO: 149)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C36	rab2	M35521	<p>agacaagagggttcagccagtgcatgacctgactatcggtgtagagttg gtgctcgaatgataactattgatgggaaacagataaaacttcagatatg ggatacggcagggcaagagtccttcgtccatcacaaggatcatattac agagggtgcagcaggggcttactagtgatgatattacaaggagagata cattcaaccacttgacaacctggtagaagatgcccgccagcattccaa ttccaacatggctcattatgcttattggaaataaaagtgattagaatcaag aagagaagtaaaaaagaagaagggtgaagctttgcacgagaacat ggacttatcttcagtaaactctgtaagactgctccaatgtagaagag gcatttataatacagcaaaagaatttatgagaaaatccaagaagga gtcttgacattaataatgaggcaaacggcattaaaatggccctcagca cgctgctactaatgccacacac</p> <p>(SEQ ID NO: 150)</p>
C37	rab5	M35520	<p>aagcctagtgctcgtttgtgaagggccaatcattgaattcaagagag taccataggggctgcttttaacccaaactgtgtcttgatgataaac agtaaagtgtgaaatagggatacagctggtcaagaacgataccatag cttagcaccaatgtactacagaggagcacaagcagccatagttgtat gatacacaaatgaggagtccttgccagagccaaaaactgggttaa gaactcagaggcaagccagtcctaactgtgaatagctttatcaggaa acaaggctgatcttgcaataaaagagctgtcgattccaggaagcac agtcctatgcagatgacaacagttattatcattggagacatcagctaaa acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagtg caaagaacgaaccacagaatccaggagcaaatctgccagaggaa gaggagtagaccttactgaacccacgcagccaa</p> <p>(SEQ ID NO: 151)</p>
C38	rab7	M35522	<p>ccccaacacattcaaaaccctcgatagctggagagatgagttctatc caggccagtcgccgggatcctgaaaacttccttctgtgtgtgggaaa caagattgacctcgaaaaacagacaagtggccacaaagcgggcaca ggcctggtgtctacagcaaaaacaacattccctacttcgagaccagtg caaggaggccatcaatgtggagcaggcgtccagacgattgaagga atgcacttaaacaggaaacagaggtggagctgtacaatgaattccctg aaccatcaaaactggacaagaacgaccgggccaagacctcagcgg aaagctgcagttgctgaaggggcagtgagagcagagcacagagtcct tcacaaacaagaacacacttaggccttcaacacgagcccccttctc tcttcaaaacaaacataaagtcattctcgaatccagctgccaaaaga ccctaccaaacacttcaccctgacacacaca</p> <p>(SEQ ID NO: 152)</p>
C39	APO CII	M17177	<p>ctggttctgtgtgtctcctcgtgtattgggatttgaggccagggggccc atgagtcacagcaagatgaaaccaccagctccgccctgtcaccacag atgcaggaatcactctacagttactggggcacagccagatcggtgcc gaggacctgtacaagaaggcatacccaactcatgtgatgagaaaaat caggacatatacagcaaaagcacagcagctgtgagcacttacgca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gggattttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgctctgtccccctgttgcgcacgcaggcaagggccagggtggc cgctgccccggagcatccagcaccctcagccgggcccaggctccc acctcgggcctcggcgttgctcctgcagctcctggctcgacaaggagt cgtctacttctgccacctggacatcatctgggtgaacactccgggtgag ctcccgggggaccaggcggggtgctagaggcggggcaggggg tggggaacctgtagctagcacagctctccctgggctccagacggatc gctgagctgacatgaagagcggctgggtgtgtccctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttctctgccacaaaatgccagtagtaaacaacccatcgata ggaaagtattttgttctgtgcagctctgtcattgggcccattggagcgcg gaactggactcccaagacaaatggtaccagcgttctcttaaaaagatg ccttaatccattctcgaggggtggaccttagttgagatgatagcagactgt actccctccggcagctggccttctgcccagttgcaggttaacagatt agcctgtattctctcagtggtttgataatggctccagattcattggcgtt agggaagccttttagaatcttcacgtgtcatcgtcgaaattgaaacactg agttgttctgtgatgggtttggagatactccatcttttaagggttgctctg tctaattctggcaggacctcaccaaaagatcgggacctcgtaaccaacgtc agacacgatgtcgccgtgtgtgcgttctgtattta (SEQ ID NO: 155)
C42	leptin	AB020986	gccttaccctcagggaacctgcattccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgagcagctgaac cagcgcactcctcagcaggcggaatgctgaactgagaatgtcagtg ctcagggggccacaggctaaccctgctccactctgtagcattttgctttt cagggcacggcagcatttattactgtgtagccacatccctctgaagcag cagcatagctgacaatttaaaaataagaactaagaacatacctaagac cataacggcagacaagtagcagggccgagactagagttcaggacct ctgactcccagagtgtccggggagccaggtaatgtccctggagggtgc aaataggggtgggcaggggagaccagaagtgttacaggggagagag gacttgagggtgatttgaggagggtgaggatgtgaattgcctgaatgg cggaggctgtttgttcacgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	agggtgccctgcagcccaactccaacaggataagttcctggggcgctg gttcacctcgggcctcgctccaactcgagctggttcggggagaagaa gaacgtgctgtccatgtgtatgtcagtggtggccccgaccgcagacgg aggcctcaacctcacctccacctctcaggaaagaccagtgtgagac tcgaacctgtcctacggccggcggaacccgggctgctacagta cacgagtccccactggggcagtaccacgacgtgtgggtggttagcca

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ccaactacgaggagtagcggttctctacaccgcaggcagcaaaaggc ctcgccaggacttccacatggccactctctacagccgacccagacc ccaaaggccgagataaaggagaaattcagcacctttgccaagacc agggcttcacagaggatgccattgtctcctgccacagactgataaatg catggaggagaacaagtaggtgaccgccc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttccccagataagcctggaggatattaatgat ggatctaaaaaaggaaaacccgagggcactggaattaagaatcagc cgtgggtcaatttggcttctcaatccacatggtatcagcaccttcatag acagcgacgacacagttatctcttgtgtaaaccatccagaatcaag aatacagtggaatttttaaatgaagaagaagaaattctcttctgcat ctaaaaacaatcaaacatgaacttctccaagtgtgaatgatcatagc tgttgaccagcacatttctatgccaccaatgaccactatttctgacctt tctaaagtatttgaaacatactgaacttacactgggcaaatgtgttta ctacagtccagatgaagttaaagtggtagcagaaggggttgatgcagc aaatgggatcaatattcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtgtcaacagttactactcttggatcacg actatgggcacatggagggtgattcagctgcagctggccaccgagttga gaactggtataggacctaccagaaaccaataatccagagcgagtagc gggcagagacaattgcaggcttccaccaggatccacctctgatgtttag tgaggagtaccagaaaggctgtctgagcagtagtacctgtgtgctggat cagaaacgcaaagaatatgtggttgagagctcatctggaatttgcgtg attttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcatttctactcgccagagacaacccaaagcggcgcccttctttgc gagagaggtagtggaacttgccaatgaaaccgggcaccaccgggtc cgcgccaagtccagtggttgaaaacagccggttcgaccttgaag cctctgtct (SEQ ID NO: 159)
C46	caveolin-2	AF039223	ctccagggtgggcttcgaggacgtgatcgcgacgacggtgtctacgcact cctttgacaaagtgtgatttcagccatgcctgtttgaggtcagcaagt acgtgatctacaagttcctgacgtgtcctggcgatgccatggccttcg cggcaggggttctctcgcaccctcagctgcctgcacatctggattata atgccttctggaagacctgcctcatggtccttcctcggtgcagaccata tgaagagtgtaacagatgctgtcattgccccgtgtgtcaagtgtagg acgcagcttctctgtcagctgcaagtgtgacgactgagcacttgg acccca (SEQ ID NO: 160)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C47	matrix metalloproteinase-14	AF032025	<p>ttctcaaaggagacaagcactgggtgtttgatgaagcttcttgaacct ggctacccaagcacatcaaggagctggcgaggactgcctactga caaatcgatgctgctcttcttgatgccaatggaaagacctacttct ccggggaacaagattaccgtttcaacgaggaactcagggcagtgga acagcgagtacccccaaaaacatcaaggctctgggaaggaatccctga gtctccagagggtcattcatgggcagtgatgaagtctcacttactcta caaggggaacaaatactggaaattcaacaaccagaagctgaaggta gagccaggcta</p> <p>(SEQ ID NO: 161)</p>
C48	matrix metalloproteinase-9	AB006421	<p>gattctcaagggcaagggacgccgggtgcagggcccttcttatcac cgagcacgtggcctgcgtgccccgcaagctggactccgccttgagg acgggctcaccaagaagactttcttcttctggcgccaagtgtgggtg tacacaggcacgtcggtaggagccgaggcgtctggacaagctggg cctgggcccggagggtaccgaagtcaccggcgccctcccgaagcgg ggggaaggtgctgctgttcagcaggcagcgttctggagtttcgacgtg aagacgcagaccgtggatccaggagcgccggtcgggtggaacag atgtacccgggggtgccctgaacacgcatgacatcttccagtaccaag agaaagcctactctgccaggaccgcttactggcgtgtgaattctcgg aatgagggaaccagggtggacgaagtgggctacgtga</p> <p>(SEQ ID NO: 162)</p>
C49	IL-8	U10308	<p>gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga aatgagggtgcttgacccaaggaaaaatgggtacaaaagggtgt gcagatatttctaagaaggctgagaaacaagatccgtgaaacaaca aacacattctctgtgttccaagaattcctcaggaaagatgccaatgag actcaaaaaaatctatttcagtactcatgtcccgtagacctgggtgag gattgccagataaaaaacagtatgccagtagattggaatattaagta aaacaatgaatagtttttctaaagtctcatatgttgccctattcaatgtct aggcacacttacattaacatattatcattgttgctgtaaatcaaatgta gctggaaatcctggatataattgtgtgtgtacatcttccacctcacctaca ggccaggatgcatgagtcctttcaacctgaccttggtc</p> <p>(SEQ ID NO: 163)</p>
C50	keratinocyte growth factor	U80800	<p>caatgacatgactccagagcaaatggctacaaatgtgaactgtccag ccctgagcgacatacaagaagtattgattacatggaaggaggggat aagagtgagaagactcttctgtcgaaacagtggtatctgaggattgat aaacgaggcaaatgcaagggaacccaagagatgaagaacagttac aatatcatggaaatcaggacagtggaagtggaaatggtgcaatcaaa gggtgggaaagtgaatattatcttgcaatgaataagggaaggaaagctct atgcaaaagaagaatgcaatgaagattgcaacttcaagaattaattct ggaaaaccattacaacacatagcatcagctaaatggacacacagcg gaggagaaatgttgtgtttaaataaaaaggggttctgtgaaggggg aaaaaacgaagaagaacaaaaaacagcccacttcttctctatggc</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			aa
			(SEQ ID NO: 164)
C51	decorin	U83141	<p>gattgaaaatggagccttccagggaatgaagaagctctcctatatccgc attgctgataccaatataactaccatccctcaaggctctcctcccttac tgaattacatcttgaaggcaacaaaatcaccaaggtgatgcatctagc ctgaaaggactgaataatttggctaagttgggactgagtttaacagcat ctccgctgttgacaatggcactctagccaacactcctcatctgaggag cttcacttggacaacaataagctcatcagagtaccgggtgggctggcg gagcataagtacatccagggtgtctaccttcataacaacaatatatctgc agtcggatctaagacttctgccacctggataacaacacaaaaaggct tcttattcagggtgagcctttcagcaaccagtgagctactgggagatc cagccatccacctccgggtgtgtctacgtgcgctcgccatccagcttga aattat</p> <p>(SEQ ID NO: 165)</p>
C52	glucose-6-phosphatase	U91844	<p>ctggggatctcagctgcaggattttctacctgtcccatccttacaagaaaa gggaaaggagcagtggttgatagagaagaagaatggattaagg aaagacttctcgtatcctgcataatcatgcaaatcatgttacacaaaatct aaatcgcttgattatattgaatttttaggtaaggaactctcaatagtgggg gaccaactaaagcataactaataggtagttaatggggtaattctgcttct tctatgtttctactatgtattcagtgacctagattgtgtcgggtcagagcatt cagatatagtcagcttctctatcacactacatcttccctgtcagcctag ctcagctttccctagaactttccactgctctacatcgctgacacagaga tgccataaaggcagctctagggtagtgctttgtatggttagtcaagctctg aaatcttgggcaaaaaggtaggagaggggaaggagaggaaagg at</p> <p>(SEQ ID NO: 166)</p>
C53	TGFB1	L34956	<p>gacccttctgctcctcatggccacccactggagagggccagcacc tgcacagctcccggcagcgccgggcccctggacaccaactactgcttca gctccacggagaagaactgctgctccggcagctctacattgacttccg caaggatctgggctggaagtggatccatgagcccaagggttaccacg ctaactctgctggggccctgcccctacatttgagcctggacacgca gtacagcaaggctcctggccctgtacaaccagcacaacccgggcgct cggcgggcgctgctgctgctgcccagggcgtggagcactgcccac gtgtactacgtgggcccgaagccaagggtggagcagctgtcgaacat gatcgtgcgctcctgcaagtgcagctgagggccccgccccgtccggcag gccccgcccacggcaggncggccccgccccgccccgctgcgc gggctgtatttaag</p> <p>(SEQ ID NO: 167)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C54	ZAP36/annexin IV	D38223	<p>gacacgtcctcatgttccagaggggtgctggtgctgctgctggccgggtgg cagggatgaaggaaatttctggacgatgctctcatgagacaggatgct caggacctgtatgaggctggagagaagaaatggggaacagatgagg tgaaatttctgactgttctgctcccgaaccgaaatcacctgttgcattg gtttgatgaatacaaaaggatatcacagaaggatattgagcagggattt aaatctgaaacatccggtagcttgaagatgctgctgctggccatagtaaa gtgcatgaggaacaaatctgcatacttctgaaaggctttataaatctat gaagggctgggaacagatgataacaccctcatcagggttatggtgtct cgagcggagatcgatatgatggacatccgggagagcttcaagaggctt tacggaaagtctctgtactcctcatcaagggtgacacatctgg</p> <p>(SEQ ID NO: 168)</p>
C55	N-ras	U62093	<p>gttgagcaggtggtgtgggaaaagcgactgacaatccagctaattc cagaaccactttagatgaatatgatcccaccatagaggattctaccg aaaacaggtggtatagacggtgaaacctgtctgttgacatactggat acagctggtcaagaagagtacagtccatgagagaccaatacatgag gacaggcgaaggcttctctgtgtattgc</p> <p>(SEQ ID NO: 169)</p>
C56	K-ras	U62094	<p>gtagtggagctggtggcgtaggcaagagtgccttgacgatacagcta attcagaatcactttaggatgaatatgatcctacaatagaggattcctac aggaaacaagtagtaattgatggagaaacctgtctcttgatattctcga cacagcagggtcaagaggagtacagtgcattgagggaccagtacatg aggactggggagggttcttctgtattgcc</p> <p>(SEQ ID NO: 170)</p>
C57	p38 MAPK	AF003597	<p>ctggtgacctatctatgggagcagatctgaacaacattgtgaaatgtca gaagcttacggatgacctgttcagttcctatctacaaattctccaggg tctcaagtalatacattcagctgacataattcacagggaacctaaacctta gcaatctagctgtgaatgaagactgtgagctgaagatcctggacttgg actggcccacatacagatgatgaaatgacaggctatgtggctaccag gtggtacagggctcctgagataatgctgaactggatgcattacaaccag acagttgatatttggcagtggtgataatggccgaactgttgactgg aagaacgttgttctcgtgacagacctatgatcagttgaagctcatttta agactcgttgaacccagggtgctgatttgaagaaaatctcctcag agtctgcaagaaactacattcagctttagccagatgccgaagatgaa cttgcaaa</p> <p>(SEQ ID NO: 171)</p>

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays** amended as follows:

TABLE 3 50-mer target sequence for canine arrays

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctcctcagcaggggccgaggtacaat aaaccagtttggtgctcc (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaagcctgacatcc cctggtcaggtggtgagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactcttaactctggg aatgtacaagggatagt (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:

Table 6				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTTGAAATACCTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGCCCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC (SEQ ID NO: 179)

C65	Super-oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA (SEQ ID NO: 180)	TCTCC CAGTT GATTA CATT CAAA (SEQ ID NO: 181)	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATT CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAGATTGCTGCT TGTTTTAACCAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGGCC (SEQ ID NO: 182)
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A (SEQ ID NO: 183)	TGGCA GCCAA ATTCT CATT (SEQ ID NO: 184)	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACACAGCGAGTCCTGGAGGACA TCCCCTTGAATTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAAATCCTCAATTACTGCAGCAAAAT AGCCAGCACCAGGAGCATTTTATTTCAGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCTGGAAG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGGCC (SEQ ID NO: 185)
C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C (SEQ ID NO: 186)	AGTGT CCCAT ATCCG CAATT TT (SEQ ID NO: 187)	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAAGCTTGGAAA TGGAAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAGTTCAACTAACTTTTGCCTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTGTAGAGTATAAAAATTGC GGATATGGGACACTAAGCTTGGCC (SEQ ID NO: 188)

C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTGTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAGAAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Gluta- thione S- trans- ferase alpha subunit	CAGAGA AGCCCA AGCTCC AC (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCC (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR- cadherin	GTCCGTG GCAGAG TCCCTCA GCTCTAT (SEQ ID NO: 192)	CACCG TGATG CCACA TAGCT ATCTT CG (SEQ ID NO: 196)	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTT GTAGGACACAATCATTTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)

C71	N-cadherin	GGAGCC TGATGCC ATCAAG CCTG <u>(SEQ ID NO: 198)</u>	GGTTT GCAGC CTATG CCAAA GCC <u>(SEQ ID NO: 199)</u>	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGGA GGTGATGACTGAACTTCAGGGTGAACCTGGTC TTTTGGACAAGTACAAACAATTTCAACTGATAT TCCCAAAAAGCATTTCAGAAGCTAGGCTTTAAC TTTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC <u>(SEQ ID NO: 200)</u>
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG <u>(SEQ ID NO: 201)</u>	GGGTG GCCCA TCAAT TCTTC AGGT <u>(SEQ ID NO: 202)</u>	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTCGGTTGTTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTAAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCCTGAAATTCTTTTCAGGCGCCAT ATAAGCATTGTTCCAACATACGTCTTGGCTAT AGAATTCAACCAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCTCTTGTGTTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAAACTCCACAAGTAGGTAAGGCCTTTA ACAACTGCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTCTATATACATCCAAAGATCCC CCATCCATGA <u>(SEQ ID NO: 203)</u>
C73	Glucose transporter	GCAGCA GCCTGTG TATGCCA CC <u>(SEQ ID NO: 204)</u>	AAGCC GGAA GCGAT CTCAT CGAA <u>(SEQ ID NO: 205)</u>	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCCCACAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCACTTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCATGGTCATG AGCACGGCACAGCCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC <u>(SEQ ID NO: 206)</u>
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT	GCTCA GCCCC TTTGA TGGGT AGC	CGCCGATGAGTACGACCAGCCTTGGGAGTGGA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGCGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAGC

		<u>(SEQ ID NO: 207)</u>	<u>(SEQ ID NO: 208)</u>	ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAACTCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCAGAAAGTCA TCCACTACTATAACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC <u>(SEQ ID NO: 209)</u>
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC <u>(SEQ ID NO: 210)</u>	CATAT CGCGG ATGAG AGTTT CGATG G <u>(SEQ ID NO: 211)</u>	TGCAGATCACCCGACCAGGTGTCCCTGCTTCG CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCCGACAGGCCTACACGCCTCA CCCATGTCCGCCGACCGAGTGGTGCCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTTCGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG <u>(SEQ ID NO: 212)</u>

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTTATTCNAG ACACGCAGCTGACCAAGGAGT GAGGGAGGGACCAAGGTGTGC AAGCTAATAAATAGAGGAGGG GGAGACTTCCTGGAGCTGTAG CCATTCAGTCTTCATTCTTCTC AGGCATGAAGGCATCTCTTTT CTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAG GTGTAAGAGAAAGGCCCTTC TTCCCTTACTGGGACAAATCT AGAAATCTTACACAGATGTGC AAATAAAGCTCGCGTGGTGTT C (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGT CTGGAAATAAATACAAATATCT GATTAAGAACTTCTCTGGAA AGACTTGTACACAACAGTTTTCT CTGTCTCGATTACAGCCACTCC TGCCCTGACCAAAGCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCAAGT AAGAAGTGTGTTATTGAGAAG GTTATCACTGTGGACAACTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTTTGCAGATTGAGCA GATAATTTCTTTTGAAGGTGAT AGTTTCCTAAATTGGATAAAAC CGTGGCTGCCATTATATTCAC AGAAAATAAAATGAAAACCTCA GTTAATTGTGGATTTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTA TAAACTAGTTTCACAGGCTAC AAGGAAGTATTTAGGACTATG TACAGCCTGACGGGAAACAG GCAGGGAGCTGAGGAGGGCC AAGATGAGTCTAGGGCCTTGG TGGGCGCATTCCCGGGGGAG GGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCA AGAACAACGGCATAACAAACA AACACGTCTGTGGCAATCAAG CTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAA TTTTAGGGTTAAGGGATAGGA GGAGTAGGGGCAGTAGGTGC AAGGTCATTAGGGCATTCTTCT CGTGTGAATGATGGTTTGATA TTTTTGATATGGTGGGAATATT TACCACGTTGTGTGGTGATTA ATATATAAAGTGAGTATAGGG CGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCA CCTGCTGTGTACCCAGCACTG CGGGAGGGGCTGTGAGAGAC CCAGGGCAGTACAGGACTTGT TCTTGCCCTTCAGAGGCTTAT AGTCTAGGTGGAAACAGGAGA ACCAGGACACATGAGGAGCC AGGAGAAAACAGTACAGGCCA GGATGTTACAGGAGCTTACAG TGTTTGGGGTCAGACCCACTA AGTGCTTCAGTACCTCTAGGG GCTCAATGTTACAGGGCCAGAA GAGACAATAACTCACAACCTAG CCCATGTAGCATGCCCTATCC ACAGCGTCTACCTCTGCTATC TTAAACATCTGACTCCTCGTT AAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTATTATTATA GTACATGAGCTGGACTGATGG GAAAGGGTAGGTGTATGGGC AACCACTGCCCAGATTAGCAT CGGATGCCCATCCCGATGGC CATGAATGTGCCAAATGTGCC GCCACTCTGCATCATGGTTTT CCCGATGCCGCCCATCAGCTC CCGACCCCGCATTCCGATCCT GAGACAGGAAAAGGTGCCGA AGAGCGCCCCGGCCGCCATG CCCACTGCACAACCCATCACA AAGCCCATCTTCACGCGGTAA AAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTTATTCT TGTTATACCTTCCCAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTTCA AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAAG CTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGG ATTTATACATGAAAAATGGACA AGGCTTTGCATTAGTTTACTCC ATCACAGCACAGTCTACATTTA ATGATTTACAAGATCTGAGAG AGCAGATTCTTCGAGTTAAAG ACACTGATGATGTAAGCTGAC TTCCTAATAAATATATTTTACTT G (SEQ ID NO: 225)

CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCA TCAGGGCTGCCAAGGAAGCA AAAAAGGCTAAACAAGCATCT AAAAAGACAGCAATGGCTGCT GCTAAGGCTCCACAAAGGCA GCACATAAGCAAAAGATTGTG AAGCCTGTGAAGGTTTCCGCA CCCCGAGTTGGTGAAAAACGC TAAGTTTTAGTGGATCAGATTT TTAAATAAACATCTGACTCTAA CT (SEQ ID NO: 226)
CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTT ATTTGACAATCAGCGATTAGTT CTCATCCACATTAAACAGTCTGT AGATTTTTGAAAGTGGTGACA GGTACGTAGGTAACCAAGCTG TAGAGCTTGTGTTGGTGAATCTT CATCCTCGTTAAGCTT (SEQ ID NO: 227)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGA CCTCAAGGGTGATAGTTTTGC CCGTCAGGGTCTTCACAAAGA TCTGCATCTCTGCGTCTGCTG GAGCGAACTCGCAAGGCCGC CGCCACCAAACCGCTCGCCC ACCTCGTTAAGCTT (SEQ ID NO: 228)
CTP25D	No significant match		AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGC ATACATAAGTAGATACTCAGAA ATATCTGTTGGATTGTGTTGAT TTAATTATTTTTGTGTTGCTTC TTTTAAAGATGAGCACTTTCTA TTAGATATTTTTTTGATCAAAA AAAAGATATTTTTTTGATCATA CAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTTCCTGGTT GG (SEQ ID NO: 229)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAG AGGCAGAGACACAGGCAGAG AGAGAAGCAGGCTCCATGCA GGGAGCCTGACGAGGGACTC GATCCCAAGACTCCAAGATCG TACCCTGGGCCAAAGGCAGG AGCTTAACCGCTGAGCCACCC AGGTGTCCCACTGTGAGGGT TTTAAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGT CATATTCATAAACATAATACGT TGAGAAGCTT (SEQ ID NO: 230)

CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGT GTACAGTTTTTGTAAAGGTTTTA ATTTTACAATCATTCTGAATAG TTATGGTCAAGTACAAATTATG GTATCTATTACTTTTTAAATGG TTTTAATTTGTATATCTTTTGTA CATGTAACATCTTAGTTATTT GGCTAATTTTAAGTGGTTTTGT TAAAGTATTAATGATGCCACCT GTCAGCACAAATAAGAGTAAGA ACTAATAAATGGATTGG (SEQ ID NO: 231)
CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAG AGAAAACCTCTAAATTGCCAG ATATGTTAAAAGACCATTATCC ATGTGTGTCTTCACTGGAGCA GTTAACAGAGTTGGGAGGTGA AACTGATGTTTTGTATGCCGT CCTAACACAGCCCTATGCCCG ATGTACTCAGAGACTGGAACA GCACAAGAGAAATAAAGCAAC AATCAGTAATGGG (SEQ ID NO: 232)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAAT AGGAATGAGTAATTTGGGCTT TGAAATCTCTCCCAGAAGACA AACTACTTCGATGGGAAAAAG CTTTGACATTTTGTGTTTTATT TGTAGAGGGGGTTATTGGATA CAGAGGAGCCTGGTCTCATAC ATTTTCATCTTCAGTCTGAAAA GATCTGTAATTCTGTAGACCC TGAAGCGGGGGAACCTTTCTT TCTGCCATCTCCCTTTGCTTTC ATATGAACACCTCTTCTGTACC AATCATTTGGAAAAGAAGTGA GCATATCTCTTGTTTTAAAGT TTTGCTTGNCTGGTTAGCATT CCTTTTGAGCTCAACATATATG GAACAATAAATGTCATTTAATG CTGNGNGCTATTTTGAATTCC TCATCAGGTTTTAGAAAGTGGG GTCAAGAACAACCTAAAAGCTC ATTGGACTTTGAAATTATNCCA GCCGCCNTTGACCATTATCTG GCCCCANCAAAGCAGGTAAAT TATGGCNCCNGCAAATTTGCT TTTTTTTTTAATAGNNGGANGN NTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC (SEQ ID NO: 233)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGA CTTACCCCTCCCAGATCCTGA ATGTCCTTTTGGAGTTTTTCAG ATACGGTGACAGAAGGTAAGT CAATGTAAAATATTTTCCCCA GAGTGGCTTATATTTGTATTTT TCTGGTTTGTATCAGTTTTCA TAGATTTTCATAGATCTGTTTTT TTCATTTTTGACTTGGATTCCA CCTGTTGTTTAAAAAAGTAGA ATCAGATCATGATTTATGTGGA CAGAAAATTTCTCTTTTAAAAA TACTTTTTATACAGTCATCATT TCATAGAGGGGGAAAAAATCT TTATAATACCACCAATTAAACA CTCAATAGCATTTTACTGTATT TCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGT TTAACAGATCCCATACTGTAA AATAATCATCGTTCACAGCCTA CAGTCGAAGCTT (SEQ ID NO: <u>234</u>)
CTP31A	No significant match		GGGGCAGATAAAAACTTAA TGTAATAATTTACCTCTCAGAA AAATTTCCAGTATGCTATACG GTATCACTAACTATAGTCACTA TAGTATACAGTAGATCCCTAG GATTTATTTCATGATGTACAGTC GAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTAC GAAAAGCATCAAAGCATCTTT ATGGTCAGCTTAAATTTGGTA CACTAGATTGTACAATTCATGA GGGACTCTGTAACATGTATAA CATTCAAGGCTTATCCAACAATA GTGGTGTTCAACCAGTCCAAC GTTTCATGAATACGAAGGCCAT CACTCTGCTGAACAGATCTTG GAATTCATAGAGGACCTTATG AATCCTTCAGTGATCTCCCTG ACACCCACCACTTTCAATGAA CTGGTTAAACAGAGAAAACAT GACCAAGTCTGGATGGTTGAT TTCTATTCTCCATGGTGTCATC CATGTCAAGTCCTAATGCCAG AATGGAAAAGAATGGCCCGGA CATTAAGTGGACTGATCAATG TGGGCAGCGTAGACTGCCAA CAGTATCATTCTTTTGTGCCC AAGAAAATGTTCCGAGATCCC TGAGATAAGAATTTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCG TTCTTGCCGCGTCTGTTCAAA CCGGCACGGTCTGATCCCGG AAATACGGCCTCAACATGTGC CGGCCAGTGTTTCCGTCAAGTA CGCCAAGGATATAGGCTTCAT TAAGTTGGATTAAGTGAACCTC CTTGAATGGGTCATCCAAGAT ACCTACCTTAACTGCAGATGT CCAAGATACCTACTTTGATGC CAACTCATTGTATATAAAATAA AAATACTCCAATTATGAGTGTT TTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACAA ATTTCCAATAATTTGGCATTTA TCTTTCACAAAATGTCTCCCAA ATTCTAAGCAAAGTATGCAAAT TGGAGATTAACCTAAACAGG CATAATTATCTTCTTATCCAGT TTTTCTGAAGAGACTGAAGAG TTCAGGTCTGACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTC ATTACTGTCAAAGGCATCAAC CAGATTTGGGAATTTGTTAAAA GGTTAAAAATTCATACAAAACC TGCTGTAAATTAAGACAAAGG TAGATTAAATGCATCATTATC TGTCTCTTAAATAAAGTAATGC TTTCCATAAAAAGCAAAGGTG GGCTTTTGCCTTGATGCTGAC CAAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTCAAGGATCAGTT CCGTGGCACCCCTCTGACCACA GACTGGGAGCAACACGCATCT GTGGCATTAAAAATGGAATT GGCAACTTCATGACATTGGAA TGCATATCACACTTACAGTGT CTAGACTTTCCTATGTGTGCT CAGTTACAAGTAGTGAAGCAA AAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGC CATAAATGTGAAAAGCAATACT CTGAAATAAAGATTTTTGTTTT TTGCCCTAGCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTAC CTTCTAAAAAGGCTGTATTAAT TACTTTTCACCAGTAGTATTAT GAGAGTGCCCATGTCCCTTAG CCTTTTAAAATTCATATGAGC AATCTTTAAATCATGTACTAAA TCTTATAGGCAAAGAATAGGG CCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAA GTTCACTCACTCCCATCATCT CTAGATTGGAGATTTCCAAATT TATGGCCTTTCCTAACTTTGAA GTCCTTATTTCTAACTGCCTAC TAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTT GCTATGTTGCCAGGCTGGTCT TGAACCTCTGGGATCAAGCAA TCTGCCTGCCTTGGCCTCCTA AAGTGCTGGGATTACAGGTGT GAGTCACTGTGCCTGGCCTCA TATAGTCACTATAACAGCCTAC TAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAAAAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTTACCTTCTTT GTAATTTGTGTTTTTCAGATTT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCAA GTTTTTGCAGATTTACAGAA TTTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAAC ACAAATTACAAAGAAGATAAAA ACAATTCATGACCTCAGCACA TTCAAAAGTATGATTTTTAATG GTTAATGTTCCACATTCAATTT CTACTTCTCTATTATTGCCTAC TAAGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAG GCCTCGGCTTTTCAAACCTGCA GTTGATCAAACCTGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTTAATCGTTTTCT TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTC CACCTCTGGAATTAACGTTGA GAAGCTT (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGT CCAAATAGCATAACCTAATTG CATTCAAACCATTTTCAAATC CATCTTTAAACTAGTCAGAAAA CAGGTTATTATTTTTTTAAATC ACTTAACACTGAACAGATAAG ACCTCTTAAAAGGCAGCTGAC TATATCATGTCACCATCATAGC CAATACAACATTTTGGCATAAC TTCCTAAAAACCTTTTCGCATA CACTGATCATGCTACTTATCA GCACTTTTAAACATCCTGACCA AAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTTCGGG GGGAACAGCTACTAGATGAAT TTAAGGGTTTTATGCACCTTAT AGAACTTATAGCAAAAATAGTT TTAGTTGATTTTCATTATAAATA ACGTTTTCAAGAACCTGTGCA AAACTGTCAATAATTTCTCTAAA GCACAATTGATCAGAAAAATC CATGATTGTTGAGCCTTCACA CCCTTCTTCATGTAAGAACAC CCTTCTGTACATCTCACAGTTA CTTATTAGGTTGAAAGGTATAT GGTGAATGGTCATTAGACGTC TCGACAGCCACCTGCTGCTGA CCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCCAGTGCAAG CCAGGAACATTGCAGAATGCT AAATTTATCTGCTAGGTGATGA TATTGAACGATCTAGACAATAA TTTCACCTTACTTAAATAACAA TGAACAGAATTCTTTTTTTTCC ACTCTGAGTGGATATTTCTGT CATCTCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCTG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAAACATTTATT TGGCTGGGTCATGAGTAATTT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTCTACTTTGGATCTATC TGTCTTGGAAATATCATTTTATT GGGTGTAGAAGTGAGTTATGC ACTCACCGCCTTCCATTCTGG T (SEQ ID NO: 250)
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGAC TTGTAAGGCACTGAAGCTAAG GCTAACAGCAACAGAGTCCTT TATGAAAATAATTTCAGAACCA CAACGCATTCTCTGATGGTGC ATTCCCCTGGGACAGTCGAAG CTT (SEQ ID NO: 251)
CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTTAATTTCAAATATTCATT AACCTCTTGTATCAGATTTAAG GCAGAGAAAAGATACACGCCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 252)

CTP65A	Pig mRNA for endoplasmic-reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript)	X16951	CCATTTAAATGTTTTATTTTC CTTTTAAACTAGATTGTGAAG TGCCACTGAAATAGGCAATGT TGGCAAAACAATGTCTGTTAC AATAAAATACATTAGACATTTA AATAAATAACCTTAAAAACTAC ATGGGGGGACATGAACCCAG TCGATTGAATCTGGAACAATG TTTTCTGCACAAGCGAGAACA GGCATACTCTTGTTAAGACT GATGTAAACAGAACCATCGGA ACCCTACAGTCGAAGCTT (SEQ ID NO: 253)
CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACTTTATTTGC ATATTAATAAAATTGTGCATTC CAATAATTAATAATCATTGTAAC AAAAAATGGCACTCTGATTAA ACTGCATTTTAACAGCCTGCA AGATACCTTGGGCCAGCTTGG TTTTTACTCTAGATCTCACTG TCCTCCCACCCAGCTTCTTCC TTCACCAACATGCAAGTTCTTT TCCTTCCCTGCCAGCCAGCCA GACAGGCAGATGGGAAAGGC AGGCGCCTTCGTTGTGAGTAG TTCTCCATTCTTTGATGTGAAA AGGGGCAGCACAGTCATTTAA ACTCGATCCAACCGCTTTGCA TCTTACAAAGTTAAACAGCTAA AAGAAGTAAATAAGAAGGCA ATGCTTGTGGAATGTACAGTG CATATTGGCGGCGCACGCCTC ATTACGATTGCGCTACTAAGC TT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACCTTTTGTTTAAT GGGTCTCAAAATTCTGTGACA GATTTTGGTCAAGTTGTTTCC ATTAAAAAGTACTGATTTTAA AACTAATAACTTAAACTGCCA CACACGCACAAAAA AAAAACAAATGGTCCACAAA CATTCTCCTTTCCTTCTGAAGG TTTTACGATGCATTGTTATCAT TAGCCAGTCTTTTACTATTTAA CTTAAATGGCCAATTGACACA AACAGTTCTGAGACCGTTCTT CCACCACTGATTAAGACTGGG GTGGCAGGTATTAGGGATAAT ATTCATTTAGCCTACTAAGCTT (SEQ ID NO: 255)

CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTAA CACCTTGTGGCCTGAACTCTC TCCCATCCTCCACTGTACAGT GATATGACTGAAACCTCATTTA ACCTTTTAGAACTACCAGGAG GAGGTTCCCAAGGATCCCAG G (SEQ ID NO: 256)
CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAA CTCTTAATGCACGGCACAAC GCCCAGATGTGCAGGAAAGAA AGAATGGCAAAGTAAATGCC CATATGAGTGCCATTGGGATG CCAAAGAGGGCAGACAGCAA GCGGTAAAACAGTATTTTGT CACAGTGAAGGTGGTGAAGCT GGCCTTCCAGATGCCATCAAA ACTGTGTGTTCTTCTGGTTCT GCAATCACATCTTCAAAATCAA TCTTGACCACGTCGTCGTTGA GAAGCTT (SEQ ID NO: 257)
CTP72B	No significant match		CCATTTTTGCTCTTAAAGAGCA TCTTAAGTGAGAGATCATGAC AATCTTTGGCCACTCCAGGTT TTCTCATCTACTACATGATCTG TTCCCAACAATAAGCCATTGA AATTAAAGGTCTCCAGAAGTTT TATCTGGGGTCTGTGATTGAA AAGAAGGAAAATGAGATGAGA GACTGCCTACTAAGCTT (SEQ ID NO: 258)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTTT TTTTATAGACATTACACACAA CACATATATAGTACACAAAC ACAAGATTCAACACTTGTAAG ATTTTTTATTTGCCAGTTTCTT AATTGGATTACTGGCATCAGG GTGGAAACTTTAGAGGAAGAG AGCCAGGTAGCATGCATTTCT AGGGCCTACTAAGCTT (SEQ ID NO: 259)

CTP73B	No significant match	<p> CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTACTCA AATATTATACTCAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGC TGCCTACTAAGCTT (SEQ ID NO: 260) </p>
CTP74A	No significant match	<p> AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAAATTTTTT GAAAACCTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAAATAAATCACCATTTTTTT A (SEQ ID NO: 261) </p>
CTP75C	No significant match	<p> AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAG TGATTCATTGTAAATTATCAT GGTTTTCTGCATTAAATGGC CATTTCTGG (SEQ ID NO: 262) </p>
CTP76B	No significant match	<p> AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCCTAAAGCGAC GANTTTTTNTGGAAGGCTTTG GTCCAAGGCCATTTTTGCCGG CTATAAACGGGGTCTCCGGAA CCAAAGGGAGCACACAGCTCT TCTTAAATTGAAGGTGTTTAC GCCCGAGATGAAACAGAATTC TATTTGGGCAAGAGATGCGCT TATGTATATAAAGCAAAAGAAC AACACAGTCACTCCTGGCGGC AAACCAAAACAAAACCAGNAGT CATCTGGGGAAAAGTAACTCT GGGCCCATGGAAACAAGTGG CATGNGTTCCGTGCCAAATTC CGAAGCAATNTTCCTGCTAAT GCCATTGGACACAGAATCCGA GTGATGCTGTACCCCTCANAG GATTTAAACTAACGAANAAN CAATAAATAAATGTGGATTTGC GNTCTTNGG (SEQ ID NO: 263) </p>

CTP77D	No significant match		CAATTGGTTTAGTTTTATTTC AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTTCGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACTCTTCCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAA CTGGTAAACCCCGATTCCGTC CGATCGC (SEQ ID NO: 264)
CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGAC ACAGGAAATTCTTTTGTAAATG TTACCTGGCTTTTTGGTGGAG TTGGCTTTGCTGCAGCAATAT TCAGATTGAAAAAATGGGTTT GGGTTCACTGAGTTTAAAGGG ATGATGATAAAAAGGAGGTTT TTCTTCCTCTTCATCCCGAAAC ATGAGGCTTATTCACTATTACA TCATCATCTTCTTTACTCTGTG CGATCTGTTTGCATTTCTCAAG TTAGTTCTTCTATAGTNGCTCC TCCTGATTTTTTAGCAACTTTC TCTTCTATTGTGGGTGGAGGT GCACGCTTTTAGGTTTGGCGG GTAAAAGCTT (SEQ ID NO: 265)
CTP79B	No significant match		CATATATATTCTTTTTATTCT TGTTATACCTTCCCAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTTCA AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAAG CTT (SEQ ID NO: 266)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATA TTCTTTAAAGGAACCTTAACAA AACTTTACACTTAATAATGTAA ATCTCACCATGTTCTAGTCAA AAATTTACTACACAGACTCAGT AGCGGTAAAAGCTT (SEQ ID NO: 267)

CTP81A	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGGCC ATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)
CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAG GTCATGATTCTGAGATGATTG GAGACCTTCAAGCTCGAATTA CATCCTTACAAGAGGAGGTGA AGCATCTCAAACATAATCTTGA AAGAGTGGAGGGAGAAAGGA AAGAAGCTCAGGACTTGCTTA ATCACTCGGAAAAGGAAAAGA ATAATTTAGAGATAGATTTAAA CTATAAGCTTAAATCATTACAA CAACGGCTAGAACAAGAGGTG AATGAACATAAAGTAACCAAA GCTCGTTTAACTGACAAACAT CAATCTATTGAAGAAGCAAAG TCTGTTGCAATGTGTG (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGA AGCAGAAGGAGAACAAGCCA GGAAAACCCCGAAAACGCAAG AAGCTTGACAGTGAGGAGGAA TTTGGCTCTGAGCGAGATGAG TACCGGGAGAAGTCAGAGAGT GGAGGCAGCGAATATGGAAC GGACCAGGTCGGAAACGGAG GCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAA AATTATGAGCAGAGAAAAC AAGGGCTCAGAAGAGACCAG GGATCTGGAAGAAAAATTGAA AAGGAACCTTAGAAGAAAACAA GATCTCAAAGACAGAATTAGA TTGGTTCCTTGAAGACTTGGA AAAGGAAATCAAGAAATGGCA ACAGGAG (SEQ ID NO: 271)

CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31	NM_022506	AAGCTTAACGAGGATGAAGAT TCACCAAACAAGCTCTACACG CTGGTTACCTACGTACCTGTC ACCACTCTCAAAAATCTACAG ACTGTTAATGTGGATGAGAAC TAATCGCTGATTGTCAAATAAA GGTATAAACTGCTCCATG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCT GTGGGCTGGGGTCTCAAACCT GTGTTGCCCACTACTCAACTC TGCCATTGTAATGTGAAAGTA GTCACAGACAAAATATAAAGA AATGAGTGTGACTGTGTTCCA ATAAACTTTATTTACAAAAGC ATTCAGTGGGCTGGATTTGGC TTTTGGGCCATAATTAATCCC CTCTGGTAAAATAATCACTATT TTAGCTGGATCATGAGTACGT GGAAGCTT (SEQ ID NO: 273)
CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATA TTTATTAGATAAATATTAGAGG TTGTCACATCATCTAACTACAT ACAGCTTTGCAAGACTAGAAA TCACAATTAGTTTTTTGACCAG TTTAAAGTATGAAATGATTGCA TTGTACATACGATGTACAAAG ACGATGATGGTTTCTGTGGGA GTTACTTCAGGCTGCACTGGT GGGTGTGTTTATGTGTGTACG TGGAAGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGAT TGTTTAATCCAAGTGGGAGGG TAAACGGGAGACTCTTTGGCC TGTCAGTGACAAAATGGTTTG TAAAAAGAAAAATAAATACG ATATACAAGTAAGTATAACTAG CACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGGAAGAGCCTTGTT TTGTCATATTACCAGAGTTGGT TTTCTGGTTCCTTCTCATTTGG GTAGGCTCTGTCAGAGAGAAG GTCTAGGGCTGAAGGCTGTTG TTCAGATTCTTTGTCCCAAGT GGTGTTCCTTGATGTAGCAC TCAAGCTT (SEQ ID NO: 276)

CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGA TGTACAACTTAAAAATGTGAAG TTTGTAGCTTTAACTTTTTGTA ATAAAAACTAATAACACTGGCT TAAGTGCTGACTTGAAATGCT ATTTTATAAAGTTTGGATGTAA ATAATCAATCGAGGTCAGCAG TTTGTATATGTAGGAGACATA GCTTCCTCCCTGCACCCCCCA TTTTTTTAAAATTTGAGGTGCT TCCTGTGTGTTTTTATGTTAGA ATTGTTCTCCCTCCTTCCTACA CGTGGTCACTTTGTTTTAAAT AACTGTCCTTTGG (<u>SEQ ID NO: 277</u>)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTG TGCTTTTTCTGTGGGACCATT CCATTGAGGAGCAAAGAGCAC CATGATTCCAATCTTGTGTGT GTTTACTAACCCTTCCCTGAG GTTTGTGTATGTTGGATATTGT GGTGTTTTAGATCACTGAGTG TACAGAAGAGAGAAATTCAAA CAAAATATTGCTGTTCTTCAGT TTTGTTTGTGGAATTTGAAATT ACTCAAATTTAAATAAATTAC TGGACTGTGG (<u>SEQ ID NO: 278</u>)
CTP99A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTGTTA CATTAAATGTCGAACTCAAAT TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 279</u>)

CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCTTCG CAGAGGTGCTCGGCGGATGG GTGTGGTCTTCTTGGGTGTCT CCTCTTCTGTATCTATGCCG AAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGT TTGATTTTAAGTTTTTATATAGT TCTTAGTTTTGAAGAAATCCTT CAAGAACAGTTTCTCTAAAGA GCATGTTTTAATTAAATGCTAA TTAATTACCTTTCTTAGTTTTT CAATTTAGTAGGCCACTTTCAA TGTCTATTAAAGTGAAATAAAC CTTCTGAACCTTAAACATTTTTA AATCGATTAAAAATTGTGTCAA AAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTTTTTCAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTTCC ATATGTAGTATGTACAGTGAG ACCACTTTTTAAAAAGCAATGA CTTAGGCAAACCAACCCTAAT GGTTTGTTAGACCATTTCCCT GTTTTTAATTAAAAATCATAGG GTTGTGCTTCTGTATAAAGTTT GTACATTTCACAATGTAAATA CTGACATT (SEQ ID NO: 282)

CTP109P	No significant match	<p> ATGCAACCACACGGAATTTAT TGAACATTTTTCACAAGTGATTT CATTAAAGGAAGGCTTTTTTCG TGCCTATATTGGTTACCATCAC TTTTGCCCCTATCACAATCTCA TGGTGTAGTCCTTGCATGTAG CAGGAACTCAACAAATGTCTG CTAATTGACAGATGGAGCCC CAGACGACCTAAACTTGCAC TTTAGAAGCACTTACTTCATCC TGAGCTATTATGAATAAGGAA CTCAAGTGACTGTTAAAAGCA TTCTACTGATGAGTTGGTAAT GTTCTAAAGCAACATATCTCAA AGGAAAGGATATTGAGTTTGT CTCCACCATAAAATCCTATTTT TAAACAAAGGTACTACTTAAAA ATGGTCTTCCAAAGGCCTCAG CAGAGGTTCTAAAGAGATGTG ACAATATGCCGAAGCTT (SEQ ID NO: 283) </p>
CTP110A	No significant match	<p> AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCTTCG CAGAGGTGCTCGGCGGATGG GTGTGGTCTTCTTGGGTGTCT CCTCTTCTGTCATCTATGCCG AAGCTT (SEQ ID NO: 284) </p>
CTP111A	No significant match	<p> AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGAA CCACCATGCCCAGCCTGTTCT TTTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGTATTGGATCTATTTT TTTAAATAGGGACTAAATACAG ACCATTTTGTTAGAGTGAAATG CCAAACAAGAACGAGATTTTT CTCTTGGCT (SEQ ID NO: 285) </p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTTAATAGAAA CAACAAAAGATCAAAAGTGAT GCCTTGCTACTACTGTACATAT CAGTTGGCCTGCCCCATAGCA CACCTCAGACCATCCTCTCCA GAGGAAGAAAGGCTGGCCTC CCCAACCCCTGCAGGAAAGG GCGGTCTTGTCCCATACCACA TACCACATCTGCAGAGTCTAA AGTCTTGTTATAAGCATGACAA TAGTACAAAAAAGATTCTGTT TTCATGGATCCCCACTACAG CCCGGACCTAAAATGGCGAG GCGCTCACTTCTGCTTAGAGA AATATTCTTTGCTCTTCTGGAC ATCAGGCTTGATGGTATCACT GCCAGGCTTCCAGCCAGCTG GGCACACTTCCCCATGCTTGT CAGTAAACTGGAAGGCCTGAA CCAGTCGCAGTGTCTCATCCA CAGAGCGACCAACAGGAAGG TCGTTTACAGTGATATGCCGA AGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTAT TTAAAAATCTGATCCACTAAAA CTTAGCGTTTTCCACCAACTC GGGGTGCGGAAACCTTCACA GGCTTCACAATCTTTTGCTTAG GTGCTGCCTTTGTGGGAGCCT TAGCAGCAGCCATTGCTGTCT TTTTAGATGCTTGCTTAGCCTT TTTTGCTTCCTTGGCAGCCCT GATGGCCTGTTCTCGTTGAGC CTTCCTAACTTCAGGTTTCTGA TTCCTCTTAGCCATTATATCAG CAAGAGATGCCCCAGTGATGG CCCTCTGGAATTTGACTGCAC GGCGGGTTCTTTTCTTCTGAA TTTCTTCCGACTGTCCCTTTT GTGCTTTCTTCTGTAGAGGAC AGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)

CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGA CTAAGGGAGAGCCAAAGTTGG CAATCCCATTAAATCTTACAAC TCCTAAATTATGGCAATCACAA TGCCTGCCTGAATGAATATAG CAAGTCCTAAAGGATGTCTTC TGTGAGGGCAGATGGAAGTTT ACTTCAACTCAACTCCATCTAC TATTTAAGGGAAGGATAAGTC AAAGTAAGAGTTAATTATTTCA ACATGGTTTGTTCATTTCATGA TTTAACCACACTATGGACCCC AGAAGCAGTTAGGTAAAAGGG ATTTTCTAGAAGCTTAATTATG CCGAAGCTT (SEQ ID NO: 288)
CTP116A	No significant match		AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAAA ACACTTCATTGTTGAGAAATCA CTTACAGAATGGTGGCTATCA AACAAATAATTATAAATTTTTAA AGCACAAGTCACATGTTTTGT AACTCCTGTGTGAATTTATTTT AGCTGTGACATTTAATTGAAAA CATCAGATATGTTTTGAAAA GTCTTAATTTGAGAACAACCTGA AGGAAGTTAATCCAGAATCTA TATGTAGTTAGCTATTAATGAT GATGCTTTATTGACAGTATATT GCTAATATATTTCTTCATGAAA TCTGAAGTTAAATAGTTTCGTT GTGGAATAGTGTCACTGTAAC ATTTCCCTTACGAAGTTCAATA AACCAGCTTTGCCATAAAAAA AAAAGCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTAAAGCTGA TGTCTTATGACTTTTTATGAGT CGAAATTGTTTTGATTTAGCA AGTCAAATCTTGTAAGGCC GCGTATTTTTTTTAAAGATTATA TGAAGTCTGTGCAAAAGCTTT AAAAAGAAATGCCTCTGCCTT GCCTGCAATACATGCAATGTA CGTTAACTTCGTCTCTGTCCT CAGACACTGTCCGTATTTACTT CCTTGTTTTCTTTTCTTAAT (SEQ ID NO: 290)

CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAAAAATAGTGTTT TATTAACCTACCACACTGTTATA ATACACTTTAAACGTACAATAA GGTAGCCTTTAAATTTGAGGT GGTCTTAAGAATAACAAATGA ACAGAATTCCAAATTTTTGAAA TAGGTGAACTGCTGTAGTTAT AGGTATACATTTAGGAAAATTG TATAGCTTTTACAAGACCAGC AATGAAACTTTATTTTGTACAT TTTTTTAATAATTGAAAATATAA ACAATAATTAATAATAAAAGA AAATACAGCATAATAAAAAACA TACATTTCTCAATTAAATGTAC TGGATACATATAAATTTAAAGG GAAGAAGCAAAAAAGGAAAAT GGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAA AAAAGCTT (SEQ ID NO: 291)
CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCNAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAACACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAACACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT (SEQ ID NO: 292)

CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTTGGGACTG CTTTTGATTAATGCAGTTATCC AATTTAAGTGTTTTACTTTAA CTCAAAGTAAAAAGAAATTCTC ACATGGTAACTACTCTATTTAA ATGGTCCTGGAAACATTAAAC AGCTTTCTGCTGCTTGCTTAAT GGTAATACCTTTGATTTCTTGA TTCTAGGACATAGCTGATTTAT TAGGTAAAGTACTCTGTCAATT TTACCTTCACCCAAGACTGTC ATGTTTAAAATACTTTAGCTGT GGGAGAAATCCTTGCTGTGTT TTATTGTGAGAGGAATGGTCA TCCTCAAAGTCTGTTTCTACTA CATAATGTGGACTAATTATTTT TTCTATCACAGTATTAACAAAT GGATTTATTGTAAATACAAAGA AGATATTAATATACTATTCTTA TGTC (SEQ ID NO: 293)
CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCAT TAATAGCTAACTACATATAGAT TCTGGATTAACCTTCCTTCAGTT GTTCTCAAATTAAGACTTTTCC AAAACATATCTGATGTTTTCAA TTAAATGTCACAGCTAAAATAA ATTCACACAGGAGTTACAAAA CATGTGACTTGTGCTTTAAAAA TTTATAATTATTTGTTTGATAG CCACCATTCTGTAAGTGATTTT TCAACAATGAAGTGTTTTATAA ATATTTTGGAAAATATCTAAAA CCTCTATCCCCATTCAACTGAT AAGTATGCTCTTTTAAAAAAA AAAGCTT (SEQ ID NO: 294)

CTP126A	No significant match		AAAGAAAGTAATTATGGAAC TA GATTTTTAACATTGTAAAATAC TAAATGATCCTTCAGTTGTAAG TTGATATATATTTGTAACCTTT GTGAAATTGTATCCTTATGAAA ATACCACTTTTGTGGAAGAGA GAATCCAACATATGTAATATTTA ATTAAAACAATCCATGTTTACC CTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAG CTCTGGAGCAACTTTTATCAT GAGTCAAATATATTAAACACAT TGATGTCTTCTTGGTATATCTG AAAACAAGAGGTAGAAGTCCT GTTGAGAGTCTTTAAAATAAAC TATTTTACAAATGTAAAAAAA AAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E- cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCGAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAAC TACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT (SEQ ID NO: 296)
CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACA TAGCCAGAGAGGAGGCAAAG AAAATGAAAACAAATAGTCTTC AAAATGAGGAAAAAGAGGAAA ACAAGTGAGGACACTGGTTTT ACCTCCAGGAAACATGAAAAA TAATCCAAATCCATCAACCTTC TTATTAATGTCATTTCTTCCTG AGGAAGGAAGATTTGATGTTG TGAAATAACATTGTTACTGTT GTG (SEQ ID NO: 297)

CTP133B	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CANTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT (SEQ ID NO: 298)
CTP134A	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT (SEQ ID NO: 299)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAA ATAACAATTCAATTGCATGTTA AGTAAACCAGTTGTAGCAATA TAAAAATACAGAATTTTGAGAA AATCTGGCAAATTAACCTGTA TCTAAATGCAGCATATTCTGTG ATACTACGGAATGAAGCTT (SEQ ID NO: 300)
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGACTCC CTGCTGAGCTGGGAGCCAACT TGGGACTCGATGCCGGGACC CCAGGATCATTACCCGAAGCT T (SEQ ID NO: 301)
CTP144B	No significant match		GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAG GGAAACTCCAGCCACAGTTGA GGGAAGGCCACCTGTTGGCT CTGGGGCAGCAGGTCATCCA GTGGGCTTCAGGAGTCACCA GGCCTCTGACCAGTTCCTCCC CACCAAGCAGTTTCAGAGTTG TCCGCCAAGTCTATTTACAC CTCTCGTGTATGCCGAAGCTT (SEQ ID NO: 302)

CTP145B	No significant match		GGACTGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine- threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGC CTGTGCCTTCGCAGAGGTGCT CGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGT CATCTATGCCGAAGCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 306</u>)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAG ATACATACAAGAATAGCCAGA CTACATCAACAAAGTGTCAATA TCATGCAGCGGCTTCAAATCC GAAGTGGTGGTTTGATGTGAA GTGGTAGTATAGCTGTGCGGAG GAAGCACACGATGAGGAATGT AGAGCCAATAATTACGTGTAA TCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATAC CCCATCGGAGATTGTAAAAGA TGTCTCATAGTATGCCGAAGC TT (<u>SEQ ID NO: 307</u>)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (<u>SEQ ID NO: 308</u>)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCT AATAACTAAAATACTCTAACTT GGAATAATCGACTCCGACGTC TTATTTTTCCAAGTTGCCTTT TCTTTAAACACCTTTTTCTGA TTTAATACGGAATAACGGTCTT CTTTTCCACTCGATAACTATGG TGTCTCTTGGGTACTGCTT AAGAAAAGTTGGTTTGGGCCA TTTCG (<u>SEQ ID NO: 309</u>)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTTGAAGATA CAAGTTAGAGTTCAATCAGTA CCAAAGGTAAGGAAAAATTAA CTCTATGTACACAGTCGAGTT TTATCCTGCTTAAAAATTGTCAA GTAGAGAAAAATTCTGAAAATAT TTATGAAAAAGCTATTCTCATG CTGGCAGCAATGGTTAAAAATA AAGATATTTCTTTTATTAATAA AGAAAAAGCCTAAAAACAAC TTAAATAATCAAGTTGCTGTG AAGTGAAAGGGTTTGAAAGTG ATGAAACTGAAGTTAAAGTTCT TCTATATGTGTGTTTTACTTTA AGCAAATTAGACATAGTGAAT AAAATTTGAATTTTCAGACAAA TTATTTGCTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACAC AGAGAGAGAGAGGCAGAGAC ACAGGCAGAGGGAGAAGCAG GCTCCACGCAGGGAGCCCAA TGTGGGACTCGATCTGGGAAC TCCGGGATCAAGCCCTGAGCT GAAGGTAGACACTCAACCGCT GAGCCACCCAGGTGCCCTGA TTTGCTTTTTAAAGAAGTCTCC CCCTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACAGGTTTGTT ACAGGACTTCTGTGCATTGTA AAACATAAACAGCATGGAAAA GGTTAAATACCTGTGTGCAGA TTGTAAGATCTGGTCCGGACT TGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTT GTATCATAGTCATGCGGTCTT ATGTATGATAAACAGTTGAATA ATTTGTCCTCAGACTCTTTACT ATGCTTTTTTAAATTAAGAAA AATGTAAATATAGTAAAAATCT TCCTATGCAATTAACCTGG (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTT TTTCTGTGAACTGAAGTTGGT CAAGGATTGTAGGCAGCAGAA GGCTCACAAAACGGTCAGTTG AGGAACAGTTAGCAGTATCTG CAACATCCTCAAATATTTCTT GAACAACCTCTAAGGCTAGAAG AGAACAGTTTTCTGATCTGTC CAGAGGTTGGTTTGACCAACG CAGTAGAGCCACAGTAGGTTT TAAACATTTAGAACGGCTTCC CAGAATGGTGTGGCAGATGG AGACTGTTCAAATATCATCTGA GTGAGCACGTGGCGCAGCTG AGTCACTGAACAGAAGGCAAG AAGTAATTCTAAAACCTTTGAA GAAGAATCAGGATCCTTTCCA TTGAGAAGACCTAATACTTGA CTAAGACATGAAGAAAAGTGC TCATACCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAATTTAAAT GTTTGCAATTAACTGGTTTGT TAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTCA GAGACTGCACCTCTTAAATG TTCCTTTTCACATCTGTTTAGT GGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCCAAATCACAAATC TGATTCAAGAGAAGGAAAAAA ATGATGAAAAACATCTCATCAC ACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAG AAGCTT (SEQ ID NO: 315)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATTT AATGTTCCATAATTAACTGTA CACGACCTAGTCTTGGGACAT AGAAGCCAGTGAGGTGAGTTT GGAGCAGTCCCAGGAGCCAG GAGTCGAGTTTTTCATTGGCCT TTTTTTCTTTTTCTTTTTGTC ATTCTGTTTCATCTAAGATTATT TGGATACTTGGCACAATCTGG CTCTGCTGCTAAGCTT (SEQ ID NO: 316)
CTP202C	No significant match		AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCAC CACTTCAGATAGTAACTAAAGT AAATTTTAAATTTTATAAGAAT AAAGTAATCCCTGAAAAGAATT CACTTTTTTCCCAGAAGAAGC TTATAATTAAAAAAAAAAGCT T (SEQ ID NO: 317)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAG GAAGTAAATACGGACAGTGTC TGAGAACAGAGACGAAGTTAA CGTACATTGCATGTATTGCAG GCAAGGCAGAGGCATTTCTTT TTAAAGCTTTTGCACAGACTTC ATATAATCTTAAAAAAAATACG CGGGCCTTTACAAGATTTGAC TTGCTGAAATCAAAACAATTC CACTCATAAAAAGTCATAAGA CATCAGCTT (SEQ ID NO: 318)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAA GATAGGCATCTCTTACAGATG GGGGTGGGGGCTGTTGTTAC TGGTGAAGATAGGCATCTAGC CAGAGCTGCCCAGACTCCTTC AGTGAGTAGATAATGTCGGCG AAGGCTGAGAGCAGGGGCTT GGACTGGTACTCTATGCCATG CTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTA ATTGTGTCGAGGCATCGTAAG CTT (SEQ ID NO: 319)

CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATT TTAGATCAACCAAACATATTTA ATATAAAAACCTTTTAATATAC AAACTGTAATCACAATTGCATC CACGTAGCAGCGAGGGAATG GGGTGTTGCAGGAAGCTT (SEQ ID NO: 320)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGA GCGGCAGCTCCAAGAAAAAGA AAAAGCTCCAGAAGCTATCCC AGGAAGATTAGAATGGACATT TTACCAGGTGGGGCAAACCCA CATGATTCCAAACCCACCCTT ATATCCCAATAAAAAACAAATC ACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACCTTAT TTGAGAAAAACAAAAGGTAAA TGTATCAAAAGAGCATACAGG TTAGTGTGCAGGGACGGTCAG TGATGGCTACTGAGGTGAGGA TGTGGGCTAAGCAGGGCTAA GGCCTTTACTTGGCTCCAGAC TGCTCCGACTTTCCAGCTTCT GGGCCCCCAATCTGGGCACG TGCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTTCTGCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCAACCAAGCTTTCA ACAAGCACTGTTCTTCTAATAA TTCCTGCCACAATATATTAATT TCTTGTAGCCTACTCCAACGT TCCTCTGTCCAACGGCACACT GCTGTCCAGCGTTCACCAAGC TT (SEQ ID NO: 324)

CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACAC CAACATATACAAACACCGAGT GACTACAGTACATGCCGAGGT AAGAAAAGTACATTCGGGGAG ACTATCACTGACACTCAAGCC ATTTTTATTTCCAATATGTTTTG CTTTCACCTTTCCAGTGCCA AAAAAAAAAAAAACCTAGTCACA AATTGGAGTAAATAAGAATCG GTGCCAGTTGACCT (SEQ ID NO: 325)
CTP306B	No significant match		AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTCAAGT AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGG GATAACAAAAGCCTGATTTCT CCTGTCTCAGAAGGGATT GCAAGTATGG (SEQ ID NO: 326)
CTP308KK	No significant match		AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAAG CAAGGCAGTGTCAAAGGCAAC CCTCCCAGCAAGACTTCAGAA AACAGCTGGCAGAACTACAGG ATCTGGTGTCTGGTGTGTA ATACTCTCCTCCCTGTTCAAT GATTCAGAACATGTGCAAAGT GTGCTAGCTTTTCATCATATA CATAACAGCATTATGTATCAAG TTACCCTGTTCAAACAAGGAG CAGGCTTCCTCTTTTGA AATGACATGAAGTGAGAAAA AAATGAGAATAACCNTCNNGG GAATTATAGAGGGTTATAATTC TATCCCNACTATTTCAATAAAA GCCATCACGGG (SEQ ID NO: 327)

CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAAACGTGTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTACA TCAGTTTGAATCGATTCAAGAA GGTCATCGCTCAGGCCGTCC CAATACACTGACCTCAAACCTAT CAGGCTCAAATCTTAGAGTGG GTCAACACAAGCCCACTCAAT GCAGAACAAATCCGAGTCAAA CTGCATGAAAAACACGGTGTG TCCGTGTCTGTTGAAACTCTT CGCAAGTTTTTTCGAGATTCA GGCATGGTCTTCAAACGCACC CGCCACAGCTTG (<u>SEQ ID NO:</u> <u>328)</u>
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Please substitute **Table 8** with **Table 8** amended as follows:

Table 8			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTTCNAGA CACGCAGCTGACCAAGGAGTG AGGGAGGGACCAGGTGTGCA AGCTAATAAATAGAGGAGGGG GAGACTTCCTGGAGCTGTAGC CATTCAGTCTTCATTCTTCTCA GGCATGAAGGCATCTCTTTCT GACCAAAGCTT (SEQ ID NO: 329)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAGG TGTAAGAGAAAGGCCCTTCT TCCCTTACTGGGACAAATCTA GAAATCTTACACAGATGTGCAA ATAAAGCTCGCGTGGTGTC (SEQ ID NO: 330)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCC ACGAAGTTGTTTTAAGGTTACA GCTATGAATAAACATTGTCCAA ACAATGAAGATTTAGGGCTGA AGAACGAGCGTATGTCTACAG TCGAAGCTT (SEQ ID NO: 331)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACTA AGAACTGTGTTATTGAGAAGG TTATCACTGTGGACAACCTGGC ACAGAATACACTTCAGAGCTG TCGCCCTGAGGGACAATGACG CCAAGGTCTTTTTCTCTAAGTC CTGTTTCTTATAGGCCGAGGG TGGCTCCTGGGAGCAGTAACT GCCAACAGTCGAAGCTT (SEQ ID NO: 332)

CTP8A	No significant match	AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTTTGCAGATTGAGCAG ATAATTTCTTTTGAAGGTGATA GTTTCCTAAATTGGATAAAACC GTGGCTGCCATTATATTCACA GAAAATAAAATGAAAACCTTCAG TTAATTGTGGATTG (SEQ ID NO: 333)
CTP17G	No significant match	CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAAGTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTTTCAAGAT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 334)
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGG (SEQ ID NO: 335)
CTP25D	No significant match	AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGCA TACATAAGTAGATACTCAGAAA TATCTGTTGGATTGTGTTGATT TAATTATTTTTGTGTTGCTTCTT TTAAAGATGAGCACTTTCTATT AGATATTTTTTTGATCAAAAAA AAGATATTTTTTTGATCATACA GATTTAAGCAGGATTTTTATTA ATTCGTTTCTCTTCCTGGTTGG (SEQ ID NO: 336)
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGAA AAATTTCCAGTATGCTATACGG TATCACTAACTATAGTCACTAT AGTATACAGTAGATCCCTAGG ATTTATTCATGATGTACAGTCG AAGCTT (SEQ ID NO: 337)

CTP36A	No significant match	CAAGTTTTACCATTGTTTTAATT ATTGAAACAAAATTAACGTAAG TAGAATCATGTGCAACAGTGT CTCTAACATATGGAAGAGGTA AATATGAATTTTATACAATAAG GTATATTATCCACTGTAACAAA TTTCCAATAATTTGGCATTAT CTTTCACAAAATGTCTCCCAA TTCTAAGCAAAGTATGCAAATT GGAGATTAACCTCTAAACAGGC ATAATTATCTTCTTATCCAGTTT TTCTGAAGAGACTGAAGAGTT CAGGTCTGACCAAAGCTT (SEQ ID NO: 338)
CTP47G	No significant match	AAGCTTGCACCATACTCCTCCT CTACATATGCTCCCAAATTACC TTCTAAAAAGGCTGTATTAATT TACTTTCACCAGTAGTATTATG AGAGTGCCCATGTCCCTTAGC CTTTTAAAATTCACTATGAGCA ATCTTTAAATCATGTACTAAAT CTTATAGGCAAAGAATAGGGC CTTGCCCTGCCCCTGTT (SEQ ID NO: 339)
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAAG TTCAGTCACTCCCATCATCTCT AGATTGGAGATTTCCAAATTTA TGGCCTTTCCTAACTTTGAAGT CCTTATTTCTAACTGCCTACTA AGCTT (SEQ ID NO: 340)
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAGA GAAGTAGAAATTGAATGTGGA ACATTAACCATTAAAAATCATA CTTTTGAATGTGCTGAGGTCAT GAATTGTTTTTACCTTCTTTGT AATTTGTGTTTTTCAGATTTTCT GTAGTTAGCATATATTCTATAA TCAGAAAAAGATGCTTCAAGTT TTTTGCAGATTTACAGAATTT TGTTT (SEQ ID NO: 341)
CTP53A	No significant match	AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAACA CAAATTACAAAGAAGATAAAAA CAATTCATGACCTCAGCACATT CAAAAGTATGATTTTTAATGGT TAATGTTCCACATTCAATTTCT ACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 342)

CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAGG CCTCGGCTTTTCAAACCTGCAG TTGATCAAACCTGGGATATGCTT CGGCTGAATCTGCTCTCTGGT GCTTCTCTTTAATCGTTTTCTC CTTAAATGGGTTACTTTCTTAC TAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAA GCTT (SEQ ID NO: 343)
CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAACATTTATT TGGCTGGGTCATGAGTAATTT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTTCTACTTTGGATCTATCT GTCTTGGAATATCATTTTATTG GGTGTAGAAGTGAGTTATGCA CTCACCGCCTTCCATTCTGGT (SEQ ID NO: 344)
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGACT TGTAAGGCACTGAAGCTAAGG CTAACAGCAACAGAGTCCTTTA TGAAAATAATTTCAGAACCACA ACGCATTCTCTGATGGTGCATT CCCCTGGGACAGTCGAAGCTT (SEQ ID NO: 345)

CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTTAATTTCAAATATTCATT AACCTCTTGTATCAGATTTAAG GCAGAGAAAAGATACACGCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTGT CCATGTCACTTCGCTCCAGAG CAGCCGCAAGAGCATCTTAAC ACCTTGTGGCCTGAACTCTCT CCCATCCTCCACTGTACAGTG ATATGACTGAAACCTCATTTAA CCTTTTAGAACTACCAGGAGG AGGTTCCCAAGGATCCCAGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTGTCTTTAAAGAGCA TCTTAAGTGAGAGATCATGACA ATCTTTGGCCACTCCAGGTTTT CTCATCTACTACATGATCTGTT CCCAACAATAAGCCATTGAAAT TAAAGGTCTCCAGAAGTTTTAT CTGGGGTCTGTGATTGAAAAG AAGGAAAATGAGATGAGAGAC TGCCTACTAAGCTT (SEQ ID NO: 348)
CTP73B	No significant match	CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTAFACTCA AATATTATACTCAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGCT GCCTACTAAGCTT (SEQ ID NO: 349)

CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAATTTTTT GAAACTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAATAAATCACCATTTTTTTA (SEQ ID NO: 350)
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAAG TGATTCATTTGTAAATTATCAT GGTTTTCTGCATTAAATGGCC ATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGGG ACCAGGACTCCTAAAGCGACG ANTTTTTNTGGAAGGCTTTGGT CCAAGGCCATTTTTGCCGGCT ATAAACGGGGTCTCCGGAACC AAAGGGAGCACACAGCTCTTC TTAAAATTGAAGGTGTTTACGC CCGAGATGAAACAGAATTCTAT TTGGGCAAGAGATGCGCTTAT GTATATAAAGCAAAAGAACAAC ACAGTCACTCCTGGCGGCAAA CCAAACAAAACCAGNAGTCAT CTGGGGAAAAGTAACTCTGGG CCCATGGAAACAAGTGGCATG NGTTCCGTGCCAAATCCGAA GCAATNTTCCTGCTAATGCCAT TGGACACAGAATCCGAGTGAT GCTGTACCCCTCANAGGATTT AAACTAACGAANAANCAATAA ATAAATGTGGATTTGCGNTCTT NGG (SEQ ID NO: 352)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACCTCTCCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAAC TGGTAAACCCCGATTCCGTCC GATCGC (SEQ ID NO: 353)

CTP79B	No significant match	CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAACCTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTTTCAGAGT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 354)
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGGCCAT GGTAGCGGTAAAAGCTT (SEQ ID NO: 355)
CTP92A	No significant match	GCACTAAATTCAAACCAATGAC CTCCCATGTTCTAATTCTGATT GTTTAATCCAACCTGGGAGGGT AAACGGGAGACTCTTTGGCCT GTCAGTGACAAAATGGTTTGTA AAAAAGAAAAAATAAATACGAT ATACAAGTAAGTATAACTAGCA CTCAAGCTT (SEQ ID NO: 356)
CTP99A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTATATAG CACTTAAAAAACCATTGTGTTAC ATTAAATGTGCAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT (SEQ ID NO: 357)

CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGTT TGATTTTAAAGTTTTATATAGTT CTTAGTTTTGAAGAAATCCTTC AAGAACAGTTTCTCTAAAGAGC ATGTTTTAATTAAATGCTAATTA ATTACCTTCTTAGTTTTCCAAT TTAGTAGGCCACTTTCAATGTC TATTAAAGTGAAATAAACCTTC TGAACCTAAACATTTTTAAATC GATTAATAATTGTGTCAAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTTTCAAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTCC ATATGTAGTATGTACAGTGAGA CCACTTTTTAAAAAGCAATGAC TTAGGCAAACCAACCCTAATG GTTTGTAGACCATTTCCCTGT TTTTAATTAAAAATCATAGGGT TGTGCTTCTGTATAAAGTTTGT ACATTTCACAATGTAAATACT GACATT (SEQ ID NO: 359)
CTP109P	No significant match	ATGCAACCACACGGAATTTATT GAACATTTTCAAGTGATTTTC ATTAAAGGAAGGCTTTTTCGTG CCTATATTGGTTACCATCACTT TTGCCCTATCACAATCTCATG GTGTAGTCCTTGCATGTAGCA GGAACCTCAACAAATGTCTGCT AAATTGACAGATGGAGCCCCA GACGACCTAAACTTGCACCTT AGAAGCACTTACTTCATCCTGA GCTATTATGAATAAGGAACTCA AGTGACTGTTAAAGCATTCTA CTGATGAGTTGGTAATGTTCTA AAGCAACATATCTCAAAGGAAA GGATATTGAGTTTGTCTCCACC ATAAAATCCTATTTTAAACAAA GGTACTACTTAAAAATGGTCTT CCAAAGGCCTCAGCAGAGGTT CTAAAGAGATGTGACAATATG CCGAAGCTT (SEQ ID NO: 360)

CTP110A	No significant match	AACATATAAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGGA CGGGGACAGGGAGGATGACC TCTTAGGGCCTGTGCCTTCGC AGAGGTGCTCGGCGGATGGG TGTGGTCTTCTTGGGTGTCTC CTCTTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 361)
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGAA CCACCATGCCCAGCCTGTTCT TTTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGTATTGGATCTATTTT TTTAAATAGGGACTAAATACAG ACCATTTTGTAGAGTGAAATG CCAAACAAGAACGAGATTTTTC TCTTGGCT (SEQ ID NO: 362)
CTP116A	No significant match	AAAAGAGCATACTTATCAGTTG AATGGGGATAGAGGTTTTAGA TATTTTCCAAAATATTTATAAAA CACTTCATTGTTGAGAAATCAC TTACAGAATGGTGGCTATCAAA CAAATAATTATAAATTTTTAAAG CACAAGTCACATGTTTTGTAAC TCCTGTGTGAATTTATTTTAGC TGTGACATTTAATTGAAAACAT CAGATATGTTTTGGAAAAGTCT TAATTTGAGAACAACCTGAAGGA AGTTAATCCAGAATCTATATGT AGTTAGCTATTAATGATGATGC TTTATTGACAGTATATTGCTAA TATATTTCTTCATGAAATCTGA AGTTAAATAGTTTCGTTGTGGA ATAGTGTCACTGTAACATTTCC CTTACGAAGTTCAATAAACCAG CTTTGCCATAAAAAAAAAAAGCT T (SEQ ID NO: 363)

CTP124B	No significant match	ATGGCAAAGCTGGTTTATTGAA CTTCGTAAGGGAAATGTTACA GTGACACTATTCCACAACGAA ATTATTTAACTTCAGATTTTCAT GAAGAAATATATTAGCAATATA CTGTCAATAAAGCATCATCATT AATAGCTAACTACATATAGATT CTGGATTAACCTTCCTTCAGTTG TTCTCAAATTAAGACTTTTCCA AAACATATCTGATGTTTTCAAT TAAATGTCACAGCTAAAATAAA TTCACACAGGAGTTACAAAACA TGTGACTTGTGCTTTAAAAATT TATAATTATTTGTTTGATAGCC ACCATTTCTGTAAGTGATTTCTC AACAATGAAGTGTTTTATAAAT ATTTTGGAAAATATCTAAAACC TCTATCCCCATTCAACTGATAA GTATGCTCTTTTAAAAAAAAAA AGCTT (SEQ ID NO: 364)
CTP126A	No significant match	AAAGAAAGTAATTATGGAACATA GATTTTAAACATTGTAAAATAC TAAATGATCCTTCAGTTGTAAG TTGATATATATTTGTAACCTTT GTGAAATTGTATCCTTATGAAA ATACCACTTTTGTGGAAGAGA GAATCCAACATATGTAATATTTA ATTAACAATCCATGTTTACC CTATCCCTGCTCAATTAACAG TGTATATAGGTCTAATAATAGC TCTGGAGCAACTTTTATCATGA GTCAAATATATTAAACACATTG ATGTCTTCTTGGTATATCTGAA AACAAGAGGTAGAAGTCCTGT TGAGAGTCTTTAAATAAACTA TTTTTACAAATGTAAAAAAAAA AAGCTT (SEQ ID NO: 365)
CTP133B	No significant match	CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAGGAAA CANTAAAGAGGTTAGCCAGAG AACTTGAACCAAAGAAAAGA CAGCACGCTGTTTCAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT (SEQ ID NO: 366)

CTP134A	No significant match	<p> CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACCTGAACCAAAGAAAAGA CAGCACGCTGTTTCAAGATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT (SEQ ID NO: 367) </p>
CTP143B	No significant match	<p> AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGAG AGAGGCAGCAGCAGACTCCCT GCTGAGCTGGGAGCCAACTTG GGACTCGATGCCGGGACCCC AGGATCATTACCCGAAGCTT (SEQ ID NO: 368) </p>
CTP144B	No significant match	<p> GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAGG GAAACTCCAGCCACAGTTGAG GGAAGGCCACCTGTTGGCTCT GGGGCAGCAGGTCATCCAGT GGGCTTCAGGAGTCACCAGGC CTCTGACCAGTTCCTCCCCAC CAAGCAGTTTCAGAGTTGTCC GCCAAGTCTATTTACACCTCT CGTGTATGCCGAAGCTT (SEQ ID NO: 369) </p>
CTP145B	No significant match	<p> GGAATGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATGT CTTCTGTTATGCCGAAGCTT (SEQ ID NO: 370) </p>

CTP149B	No significant match	AGGAAGAATAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGCC TGTGCCTTCGCAGAGGTGCTC GGCGGATGGGTGTGGTCTTCT TGGGTGTCTCCTCTTCTGTCT CTATGCCGAAGCTT (<u>SEQ ID NO: 371</u>)
CTP150A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTACATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCTGAAGTCAAAGT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT (<u>SEQ ID NO: 372</u>)
CTP154A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTATATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCTGAAGTCAAAGT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT (<u>SEQ ID NO: 373</u>)

CTP164A	No significant match	AAGCTTCGGCATACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACACGGTTTGGTTA CAGGACTTCTGTGCATTGTAAA ACATAAACAGCATGGAAAAGG TTAAATACCTGTGTGCAGATTG TAAGATCTGGTCCGGACTTGC TGTGTATATTGTAACGTTAAGT GAAAAAGAACCCCCCTTTGTAT CATAGTCATGCGGTCTTATGTA TGATAAACAGTTGAATAATTTG TCCTCAGACTCTTTACTATGCT TTTTTAAATTAAGAAAAATGTA AATATAGTAAAAATCTTCCTAT GCAATTAACCTGG (<u>SEQ ID NO: 374</u>)
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAATTTAAAT GTTTGCAATTAACTGGTTTGT TAAATATC (<u>SEQ ID NO: 375</u>)
CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTTCA GAGACTGCACCTCTTAAAATGT TCCTTTTCACATCTGTTTAGTG GATCAAAAGCTT (<u>SEQ ID NO: 376</u>)
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAAT TTATGGAGAAGCCCTAAAGTT GCTTTCCCCAAATCACAAATCT GATTCAAGAGAAGGAAAAAAA TGATGAAAAACATCTCATCACA CAAACTCAGTGTGGTGTCTC TGATAGTCATCAGCCAGCAGA AGCTT (<u>SEQ ID NO: 377</u>)

CTP202C	No significant match	AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCACC ACTTCAGATAGTAACTAAAGTA AATTTTAAATTTTATAAGAATAA AGTAATCCCTGAAAAGAATTCA CTTTTTTCCCAGAAGAAGCTTA TAATTAATAAAAAAAAAAGCTT (SEQ ID NO: 378)
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATTT TTAGATCAACCAACATATTTA ATATAAAACCTTTTAAATATACA AACTGTAATCACAAATTCATCC ACGTAGCAGCGAGGGAATGG GGTGTTCAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGAG CGGCAGCTCCAAGAAAAAGAA AAAGCTCCAGAAGCTATCCCA GGAAGATTAGAATGGACATTTT ACCAGGTGGGGCAAACCCACA TGATTCCAAACCCACCCTTATA TCCCAATAAAAAACAAATTCACA GG (SEQ ID NO: 380)
CTP222D	No significant match	AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAGCCTTTCTGCTG (SEQ ID NO: 381)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTCAAGTG AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGGG ATAACAAAAGCCTGATTTCTCC ACTGTCTCAGAAGGGATTTC AAGTATGG (SEQ ID NO: 382)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGT TAAATGGAACCTGGAAACCTC TTCCTGGGATTATTCCTTAAGC AAGGCAGTGTCAAAGGCAACC CTCCCAGCAAGACTTCAGAAA ACAGCTGGCAGAACTACAGGA TCTGGTGTCTGGTGTGTAAT ACTCTCCTCCCTGTTCAAATGA TTCAGAACATGTGCAAAGTGT GCTAGCTTTTCATCATATACA TAACAGCATTATGTATCAAGTT ACCCTGTTCAAACAAGGAGCA GGCTTCCTCTTTTGACTIONAA TGACATGAAGTGAGAAAAAAA ATGAGAATAACNTCNGGGA ATTATAGAGGGTTATAATTCTA TCCNACTATTTCAATAAAAGC CATCACGGG (SEQ ID NO: 383)
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAA GGTAAACTGTTGCCGAAGTT GCTGCGTTACAAGAGCGTATC CCAGAAACCATAAGGCTACAA CGCCGAAATTGGGAGCTACAT CAGTTTGAATCGATTCAAGAAG GTCATCGCTCAGGCCGTCCCA ATACACTGACCTCAAACATCA GGCTCAAATCTTAGAGTGGGT CAACACAAGCCCACTCAATGC AGAACAAATCCGAGTCAAAC GCATGAAAAACACGGTGTGTC CGTGTCTGTTGAACTCTTCG CAAGTTTTTGCAGATTTCAGG CATGGTCTTCAAACGCACCCG CCACAGCTTG (SEQ ID NO: 384)